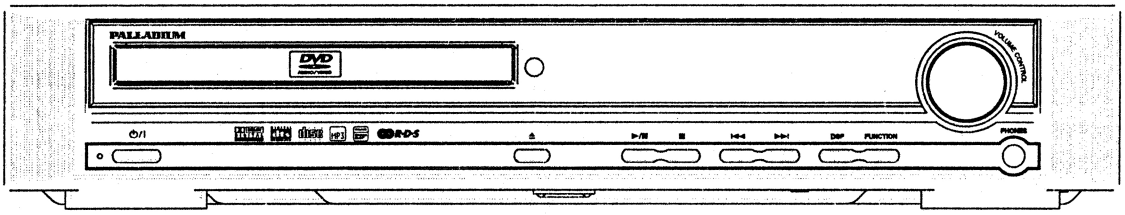
Profectis
Technischer Kundendienst
neckermann

Serviceunterlage

Fremdgeräte - Nr.:
739/111.000

DVA 299

Heimkino-System



UTS-Nr.: 702 NECKERMANN VERSAND AG
Best.Nr.: 3007986/00
FremdNr.: 739/111.000
Ger.Bez.: PALLADIUM HEIMKINO-SYSTEM

GKz: F FREMDGERAET
WGT: 655 HOME CINEMA SYSTEME
KD-Sektor: R RUNDFUNK
BaumNr.: 00 KEIN DIAGNOSEBAUM VORHANDEN
Klassierung: DVD
IFW-FehlerGru.: 205 RDF.,VERST.,TB.,PHONO,CD,CB
Type/Privileg/Universum.Nr DVA 299
Beschreibung BAUGLEICH MIT QBNR.885900
VK-Preis: 329.00

Serviceart: 03 REGIONALE-REP.STELLE
Garantie fuer Kunden 24 Monate
Sondervereinbarungen: 45 GERAETEANNAHME UND WEITERLEITUNG DURCH PROFECTIS

Garantiereparatur 0283264 PROFECTIS GMBH DVD-VIDEO-POOL-
Sondervereinbarungen: 0 SIEHE SERVICEART

Katalog Seite
Erst 034 HAUPTKATALOG H/W 2003 0000
Letzt 000 NOCH IM AKTUELLEN KATALOG 0000

Geraete Info:

Technische Daten:

Fehler:

Nachdruck nicht gestattet
Änderungen vorbehalten

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only. Mains lead must only be changed at a qualified service shop.

Produkt der
Laserklasse 1

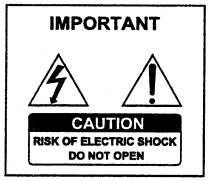
This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear panel.

VORSICHT !
UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND DIE SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN !

This label is located on the Laser protective housing inside the enclosure.

Dear Customer,

Thank you for purchasing our product, before you using it, please read this safety information and precautions contained in the following pages to ensure the safe use of your DVD Player.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "danger voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and servicing instructions

■ WARNING

To prevent fire or shock hazard, do not expose this product to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no object filled with liquids, such as vases, shall be placed on the apparatus.

■ CAUTION

To avoid electrical shock, do not open the cover (or back). Refer servicing to qualified service personnel.

To prevent electric shock match wide bland of plug to wide slot, fully insert.

■ DANGER

This DVD Player uses a visible Laser Beam.

The DVD Player is a class 1 laser product.

To prevent direct exposure laser beam. When the enclosure is opened, visible laser radiation is present , which is harmful to the eye.

Use of control or adjustments or performance of procedures other than those specified herein may result in hazarded radiation exposure.

Do not open the covers and do not repair yourself.

Refer to the qualified personnel for servicing.

IMPORTANT SAFETY INSTRUCTIONS

Failed to meet following precautions may result in damage to DVD Player

Power Sources

- Be sure that the power supply voltage of the area where this unit will be used meets the required voltage. (230V AC, 50Hz)
- Keep the power cord from heating devices.
- Do not pinch the power cord by heavy items.
- Power cord should be routed well.

Environment

- **DO NOT** place the DVD Player
- In an environment prone to extreme temperatures or humidity.
- Near heat source like heat registers, stoves, or other products (including amplifiers) that produce heat.
- Near water-for example, near bath tub, wash bowl kitchen sink, and the like.
- In direct sunlight, heater.
- In a dusty environment.
- In where strong magnetic fields are generated.
- On a surface that is unstable or subject to vibration.

Cleaning

- Unplug this product from the wall outlet before cleaning.
  Do not use liquid cleaners or aerosol cleaners.
  Use a damp cloth for cleaning.

Object and Liquid Entry

- Do not place heavy objects on the DVD Player.
- Do not push objects of any kind into this product.
- Never spill liquid of anything on the product.

Ventilation

- Do not block the DVD Player's ventilation openings.

Overloading

- Do not overload wall outlet, extension cords, or integrated convenience receptacles.

Without using

- When not using in near future, unplug power cord.

DISASSEMBLY

< MAIN BODY >

■ Removing the cabinet top (See Fig.1)

1. Unscrew 6 screws A.
2. Lift the cabinet top by holding the two sides of it, while moving it upward and backward.

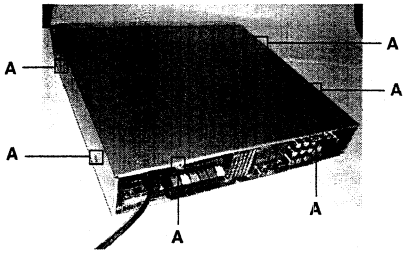


Fig.1

■ Removing the Tray Door (See Fig.2 & 3)

1. Eject the disc tray.
   (Rotate the screw B clockwise if no supply)
2. Lift up the tray door upward.

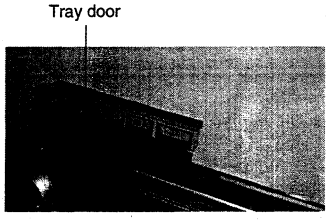


Fig.2

■ Removing the cabinet front (See Fig.3)

[Caution] You must ensure the TRAY door isn't it's place before you remove the panel front from body.

1. Unscrew screws 2 C & 2 D.
2. Pull the panel front toward yourself while pressing 3 stoppers to disengage.

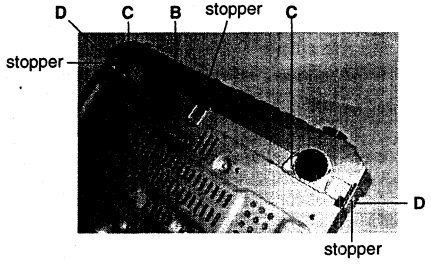


Fig.3

■ Removing the TUNER and panel rear (See Fig.4)

1. Unscrew the screw H from mpeg board unit and main board unit.
2. Unscrew the screw K from body.
3. Take the supply cord out of panel rear.
4. Remove the panel rear with tuner .

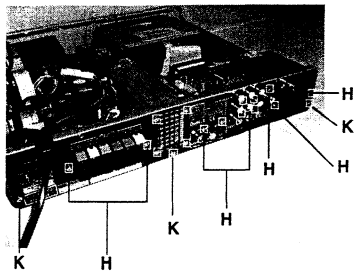


Fig.4

< CHASSIS, MAIN ASSEMBLY >

■ Removing the MPEG BOARD (See Fig.5)

[Caution] Mpeg board may be taken out only when the panel rear and Tuner have been taken away.

1. Pull the cable connector from mpeg board.
2. Unscrew the screw M.
3. Separate the mpeg board from main board vertically.

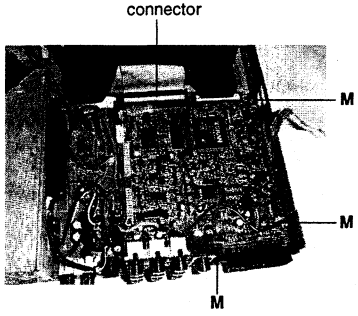


Fig.5

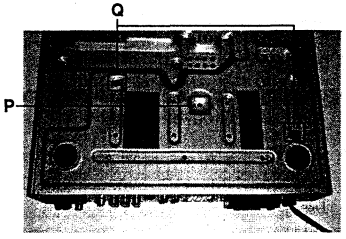


Fig.6

■ Removing the MAIN Board (See Fig.6 & 7)

[Caution] Main board may be taken out when the mpeg board has been taken away.

1. Force the PCB spacer Q to exit the holes of main board.
2. Unscrew the screw P.
3. Unscrew the screw R then you can remove the main board with heat sink.
4. Untie or open connecters to power transformer, PWB, AMP, DVD - mech.

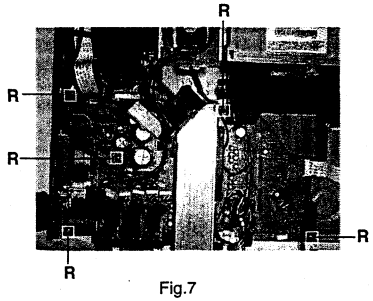


Fig.7

■ Removing FAN
(See Fig.8)

1. Unscrew 3 screws R with HOLDER, pull out connector from PWB, main.
2. Unscrew 2 screws S from HOLDER.

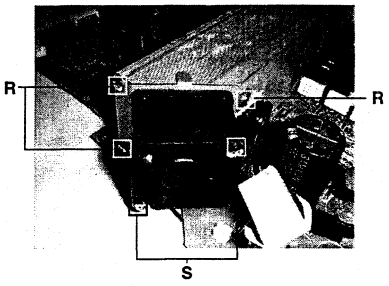


Fig.8

■ Removing the Thermal - Resistor
(See Fig.9)

1. Unscrew the screws through power IC and thermal-HOLDER.
2. Pull wire of thermal - resistor from PWB main.

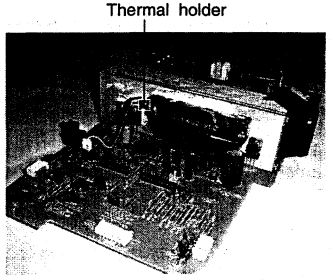


Fig.9

■ Removing the CD mechanism base assembly
(See Fig.10)

- Prior to performing the following procedure, remove the cabinet front assembly.

1. Pull out the ATAPI from J1 on MPEG board, then disconnect the wire connecter to CN809 on main board.
2. Remove the four screws M attaching the transformer assembly.

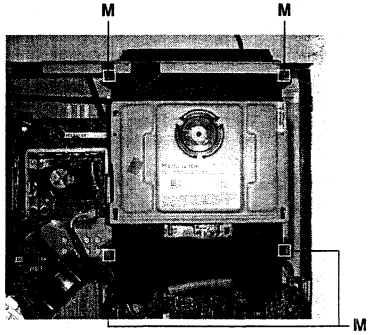


Fig.10

■ Removing PWB, AMP
(See Fig.11)

1. Unscrew 4 screws L.
2. Pull out connecter from PWB, AMP.

■ Removing Power, transformer
(See Fig.11)

1. Unscrew 4 screws N.
2. Untie wire connecters to PWB, MAIN.

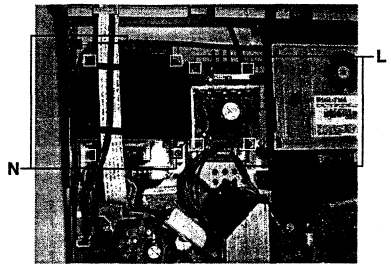


Fig.11

<Front panel assembly>

■ Removing the front PWB, Led PWB, and power switch
(See Fig.12~14)

- Prior to performing the following procedure, remove the front panel assembly.

1. Push out KNOB, VOLUME through PWB, FR.
2. Remove the eight screws X attaching the front panel board inside the front panel assembly.

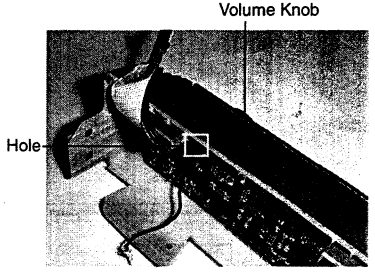


Fig.12

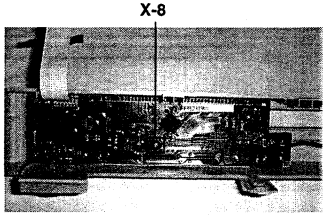


Fig.13

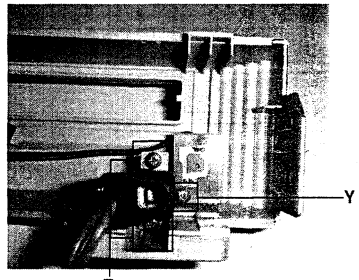


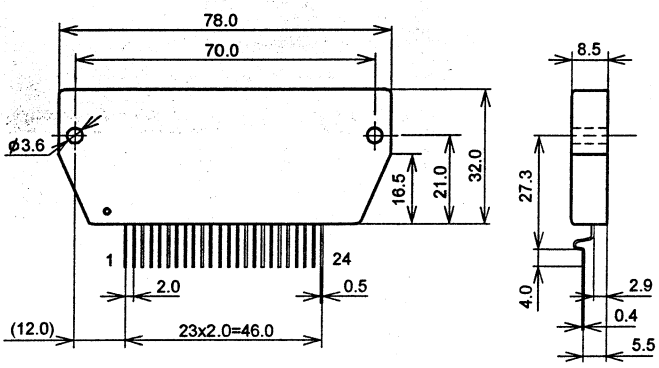
Fig.14

Description of major ICs

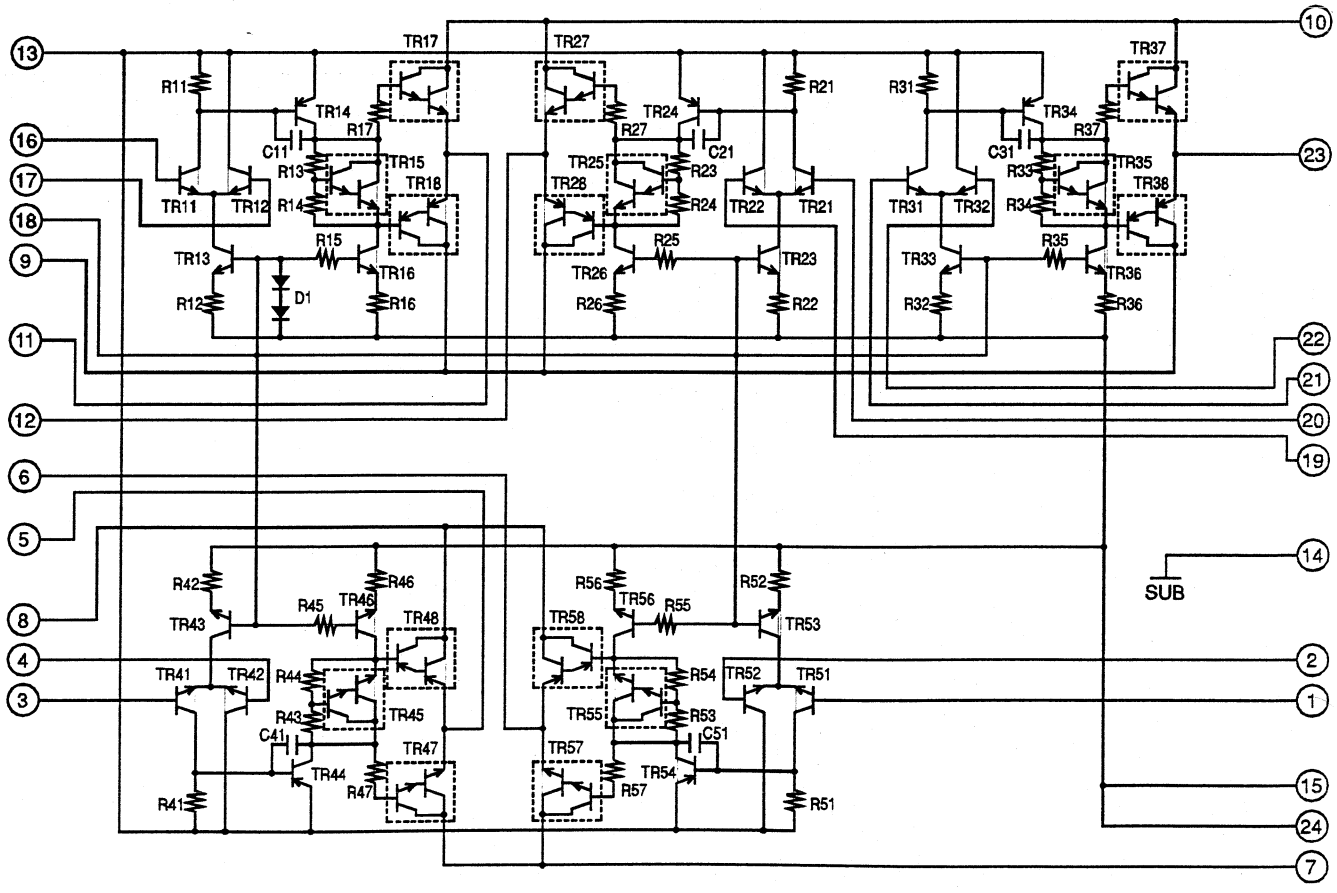
■ STK402-950 (U701) : 5 channels AF power amplifier.

1. Pin layput

(unit:mm)



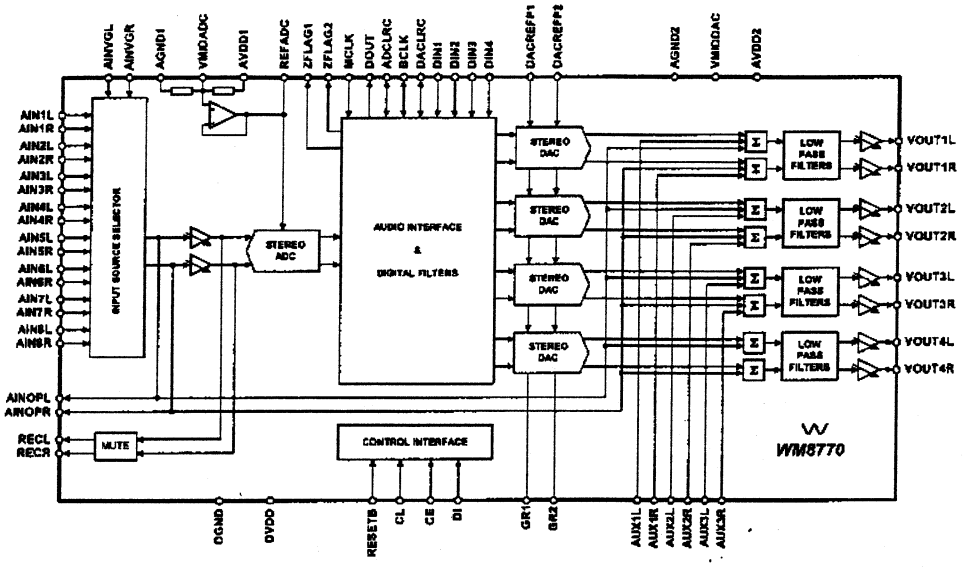
2. Block diagram



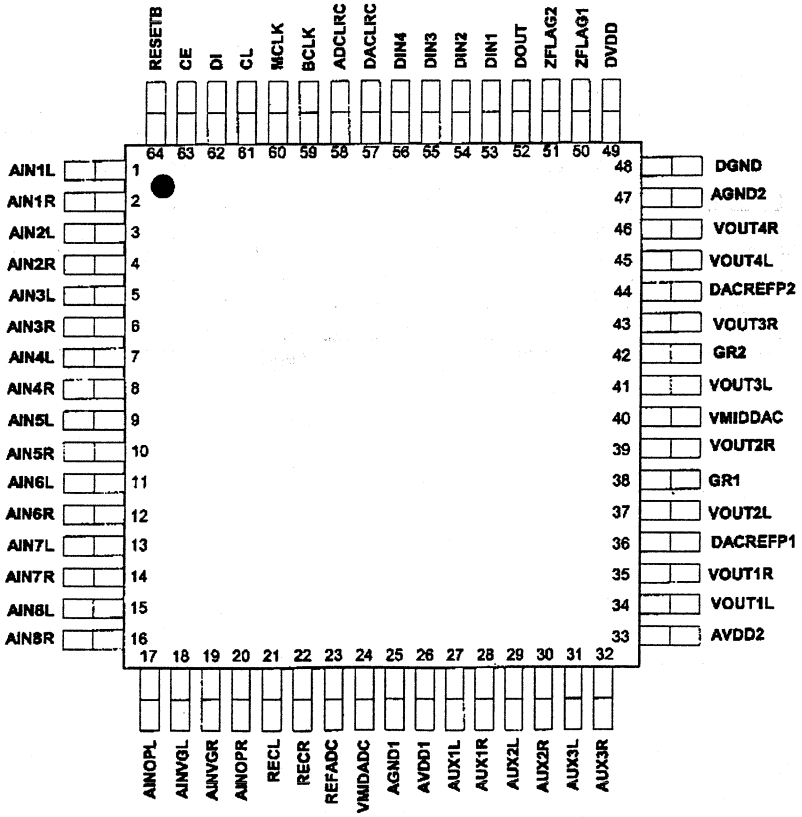
■ WM8770 (U1) : 8-channel codec & volume control

1. BLOCK DIAGRAM

- Surround Sound AV Processors and Hi-Fi systems
- Automotive Audio

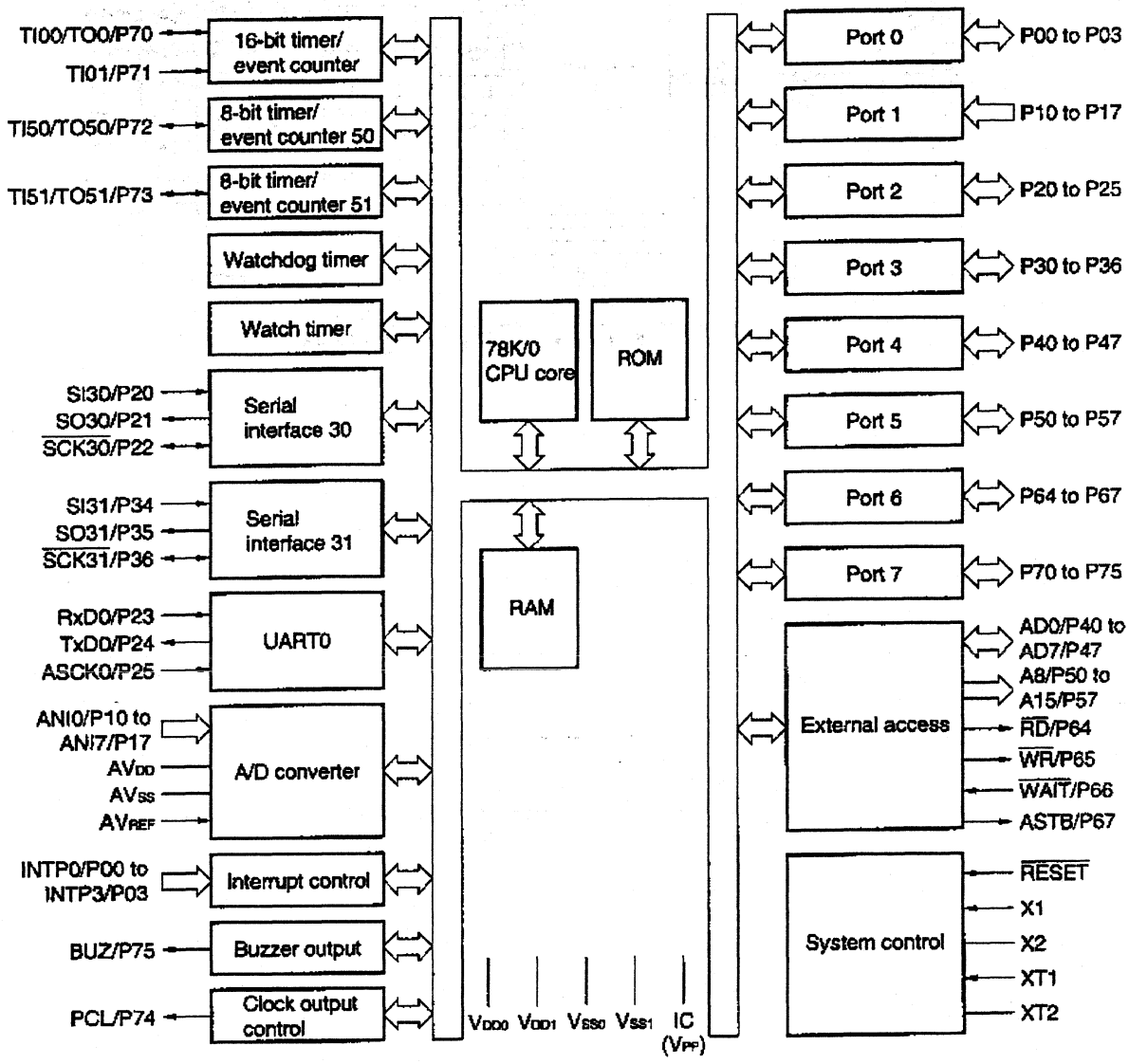


2. PIN CONFIGURATION



■ UPD78F0034A (IC 401) : CPU

1.Block Diagram



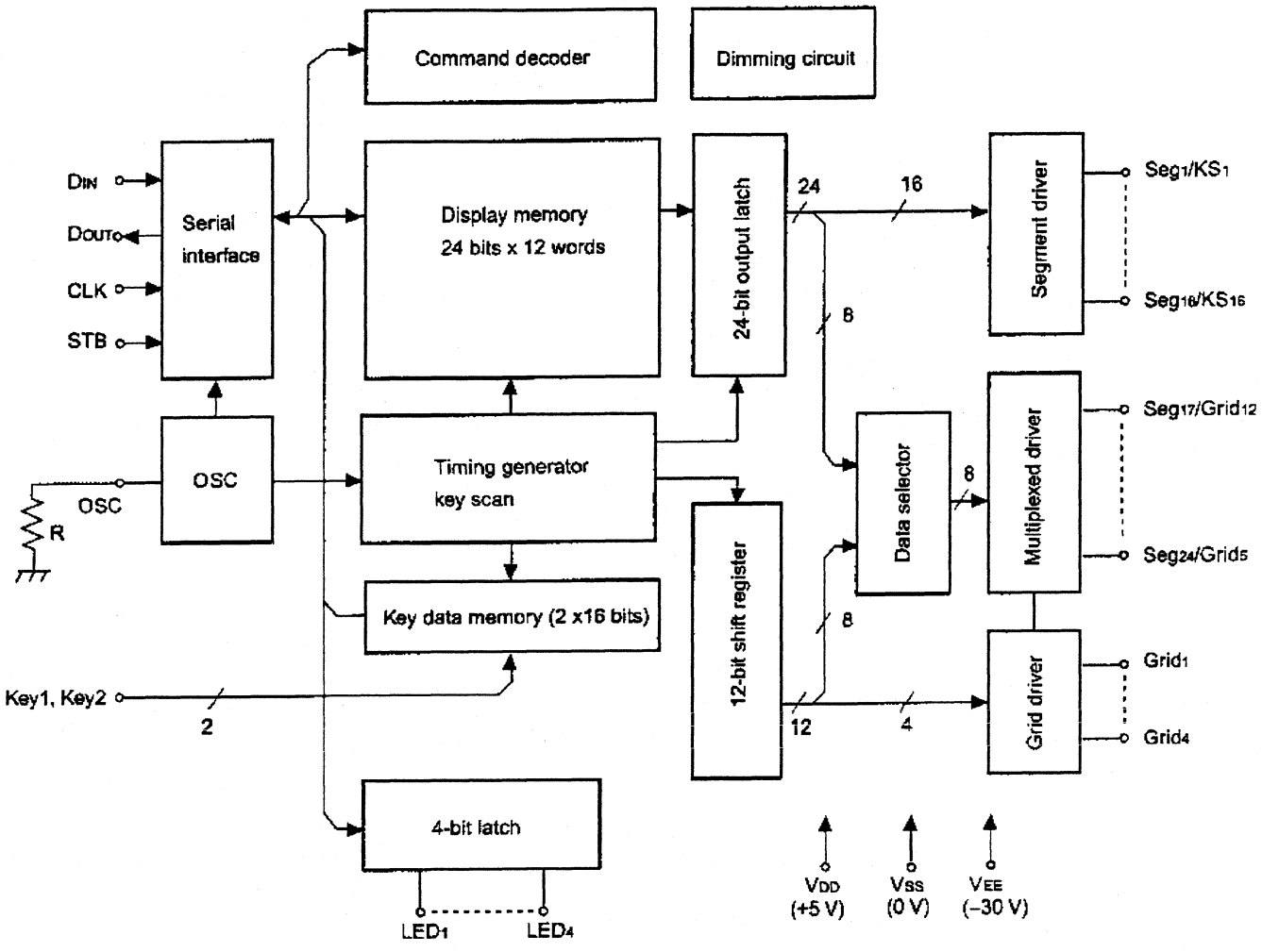
2.Outline of Function

Item \ Part Number		μPD780021A μPD780031A	μPD780022A μPD780032A	μPD780023A μPD780033A	μPD780024A μPD780034A	μPD78F0034A
Internal memory	ROM	8 KB (Mask ROM)	16 KB (Mask ROM)	24 KB (Mask ROM)	32 KB (Mask ROM)	32 KB[Note] (Flash memory)
	High-speed RAM	512 bytes		1024 bytes		1024 bytes[Note]
Memory space		64 KB				
General-purpose register		8 bits × 32 registers (8 bits × 8 registers × 4 banks)				
Minimum instruction execution time		Minimum instruction execution time changeable function				
	When main system clock selected	0.24 μs/0.48 μs/0.95 μs/1.91 μs/3.81 μs (@ 8.38 MHz operation)				
	When subsystem clock selected	122 μs (@ 32.768 kHz operation)				
Instruction set		• 16-bit operation • Multiply/divide (8 bits × 8 bits, 16 bits ÷ 8 bits) • Bit manipulate (set, reset, test, and Boolean operation) • BCD adjust, etc.				
I/O port		Total: 51 • CMOS input: 8 • CMOS I/O: 39 • N-ch open-drain I/O (5 V breakdown): 4				
A/D converter		• 8-bit resolution × 8 channels (μPD780021A, 780022A, 780023A, 780024A) • 10-bit resolution × 8 channels (μPD780031A, 780032A, 780033A, 780034A, 78F0034A) • Low-voltage operation: AV_{DD} = 1.8 to 5.5 V				
Serial interface		• 3-wire serial I/O mode: 2 channels • UART mode: 1 channel				
Timer		• 16-bit timer/event counter: 1 channel • 8-bit timer/event counter: 2 channels • Watch timer: 1 channel • Watchdog timer: 1 channel				
Timer output		Three outputs (8-bit PWM output enable: 2)				
Clock output		• 65.5 kHz, 131 kHz, 262 kHz, 524 kHz, 1.05 MHz, 2.10 MHz, 4.19 MHz, 8.38 MHz (8.38 MHz with main system clock) • 32.768 kHz (32.768 kHz with subsystem clock)				
Buzzer output		1.02 kHz, 2.05 kHz, 4.10 kHz, 8.19 kHz (8.38 MHz with main system clock)				
Vectored interrupt source	Maskable	Internal: 13, External: 5				
	Non-maskable	Internal: 1				
	Software	1				
Power supply voltage		V_{DD} = 1.8 to 5.5 V				
Operating ambient temperature		T_A = −40 to +85°C				
Package		• 64-pin plastic SDIP (19.05 mm (750)) • 64-pin plastic QFP (14 × 14) • 64-pin plastic TQFP (12 × 12) • 64-pin plastic LQFP (10 × 10)				

★

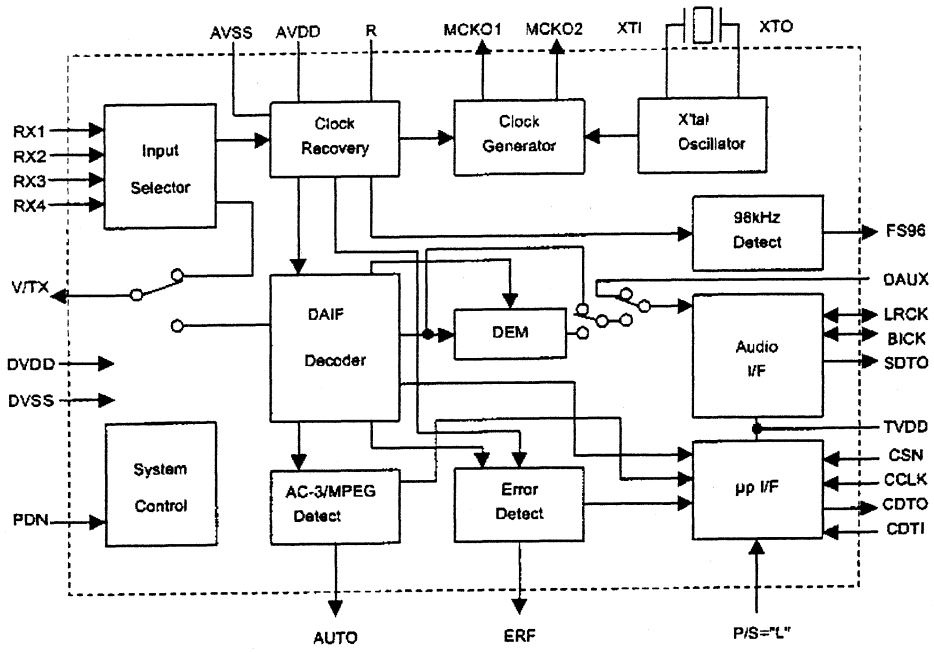
■ UPD 16315 (IC904): VFD control ler / driver

1. BLOCK DIAGRAM

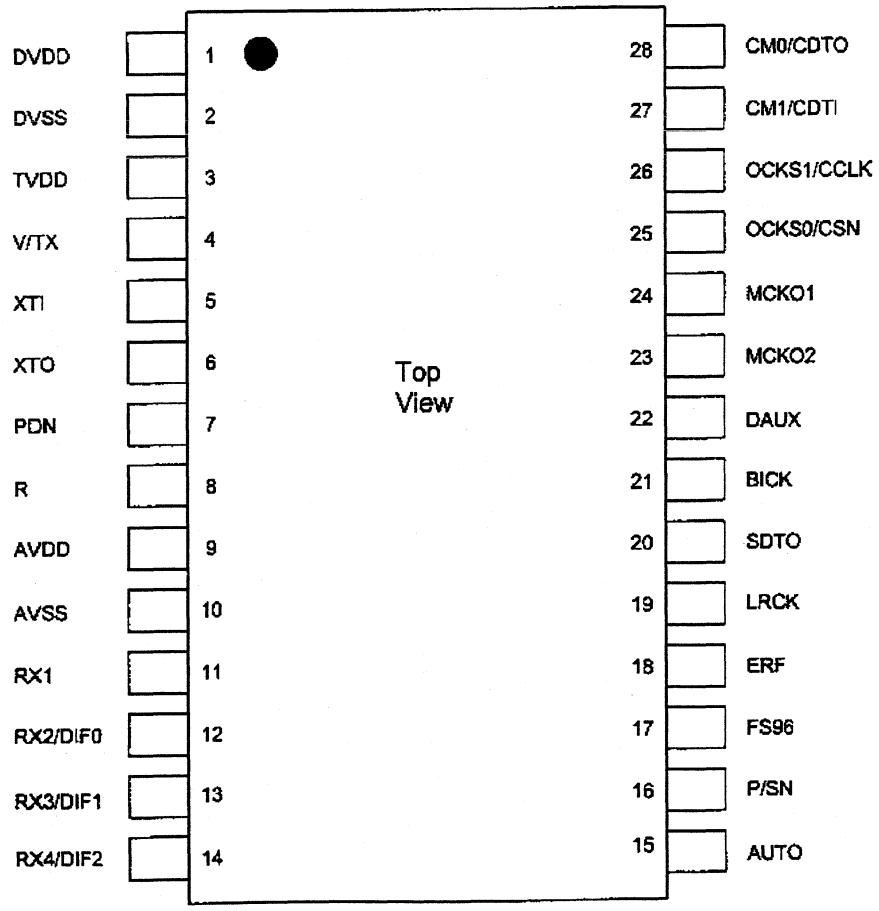


■ AK4112 (U17) : Digital audio receiver

1. BLOCK DIAGRAM

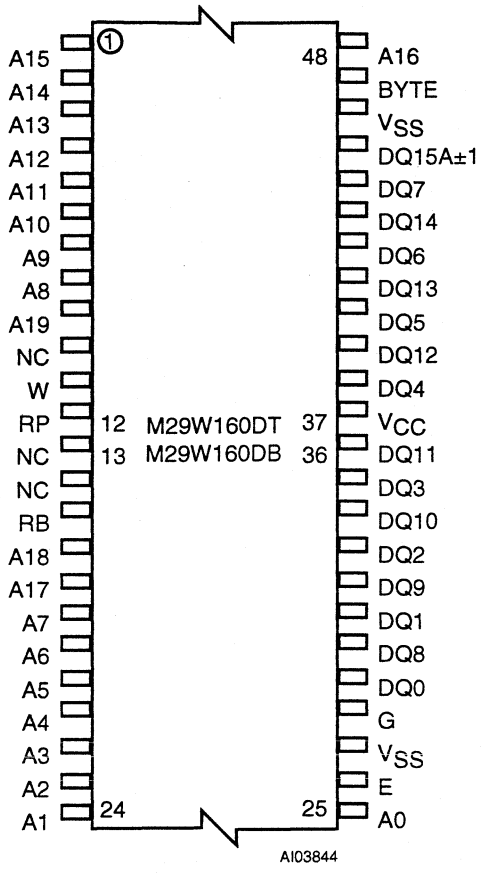


2. Pin Layout (AK4112BVF)

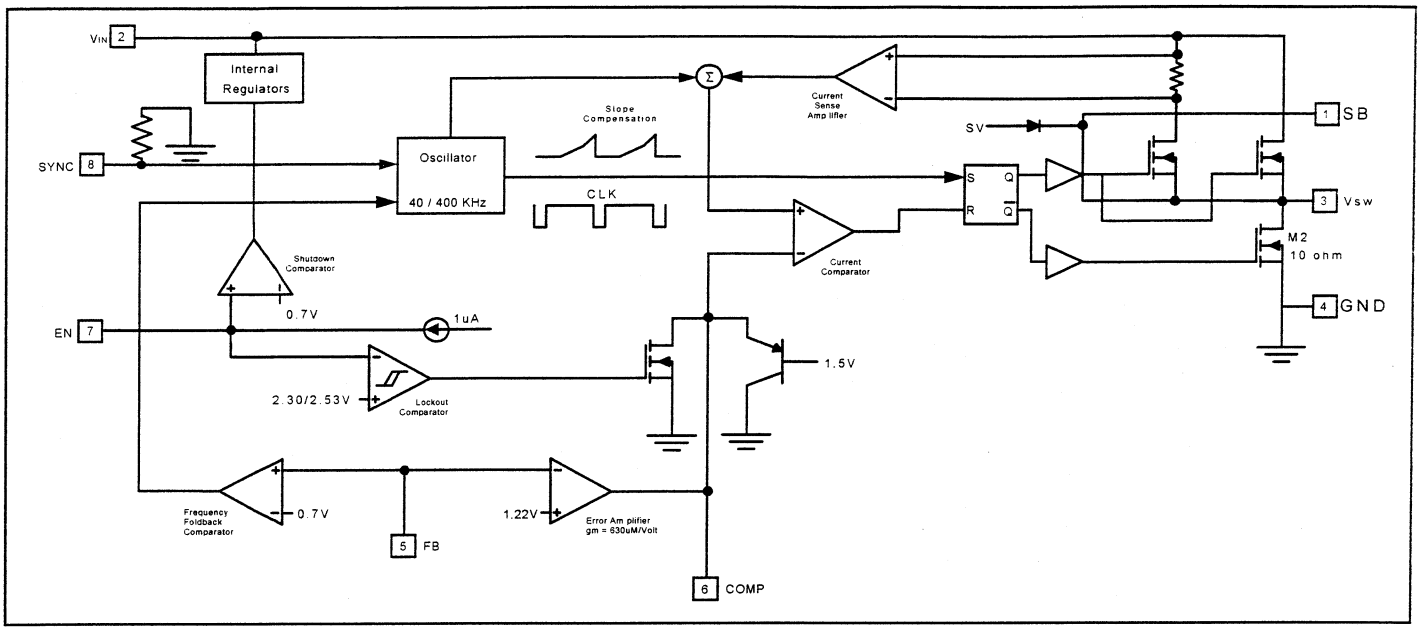


■ M29W160DB (U12) : 16M Flash memory

1. Pin layout

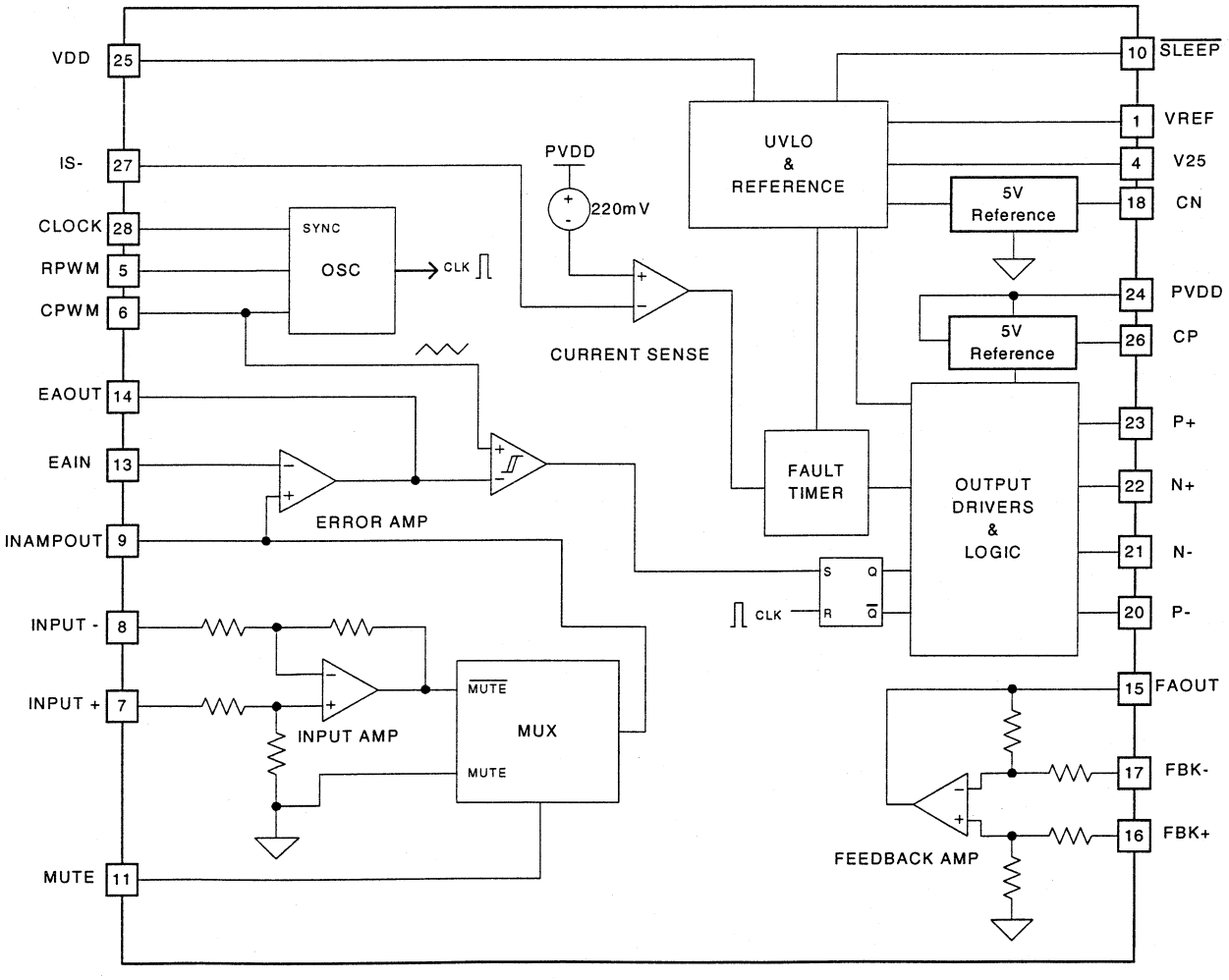


■ 2a3020 (IC 701): DC - DC Regulator



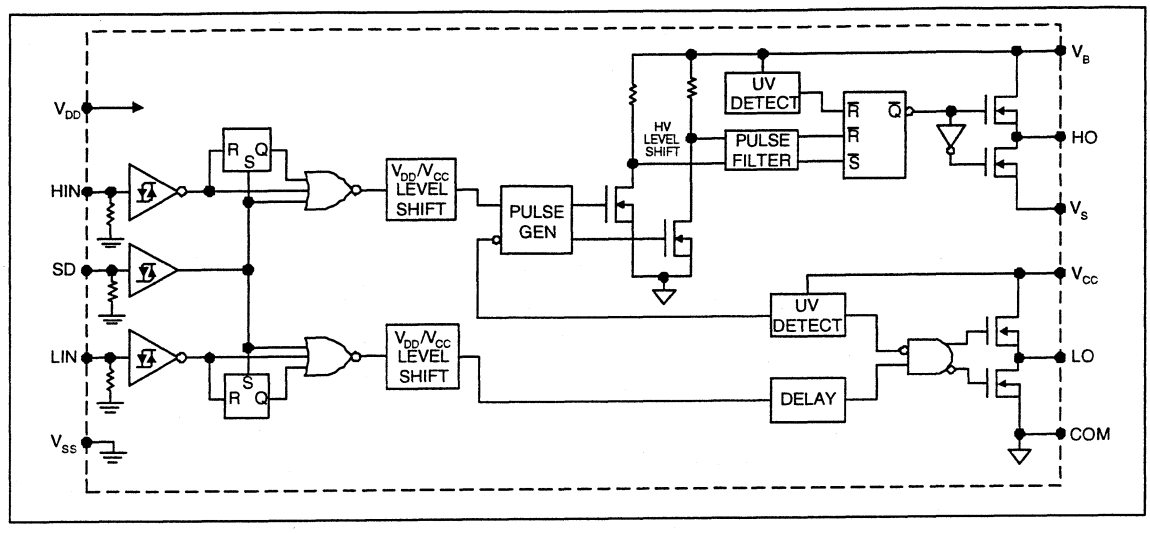
■ LX171/LX1711 (IC603) :

Class-D mono power amplifier controller



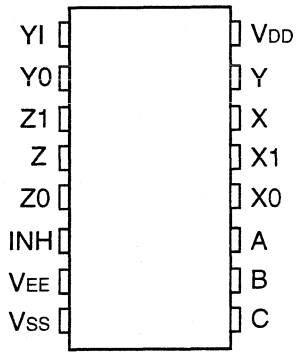
■ IR2110 (IC603, 604): Low and high side driver

Functional Block Diagram

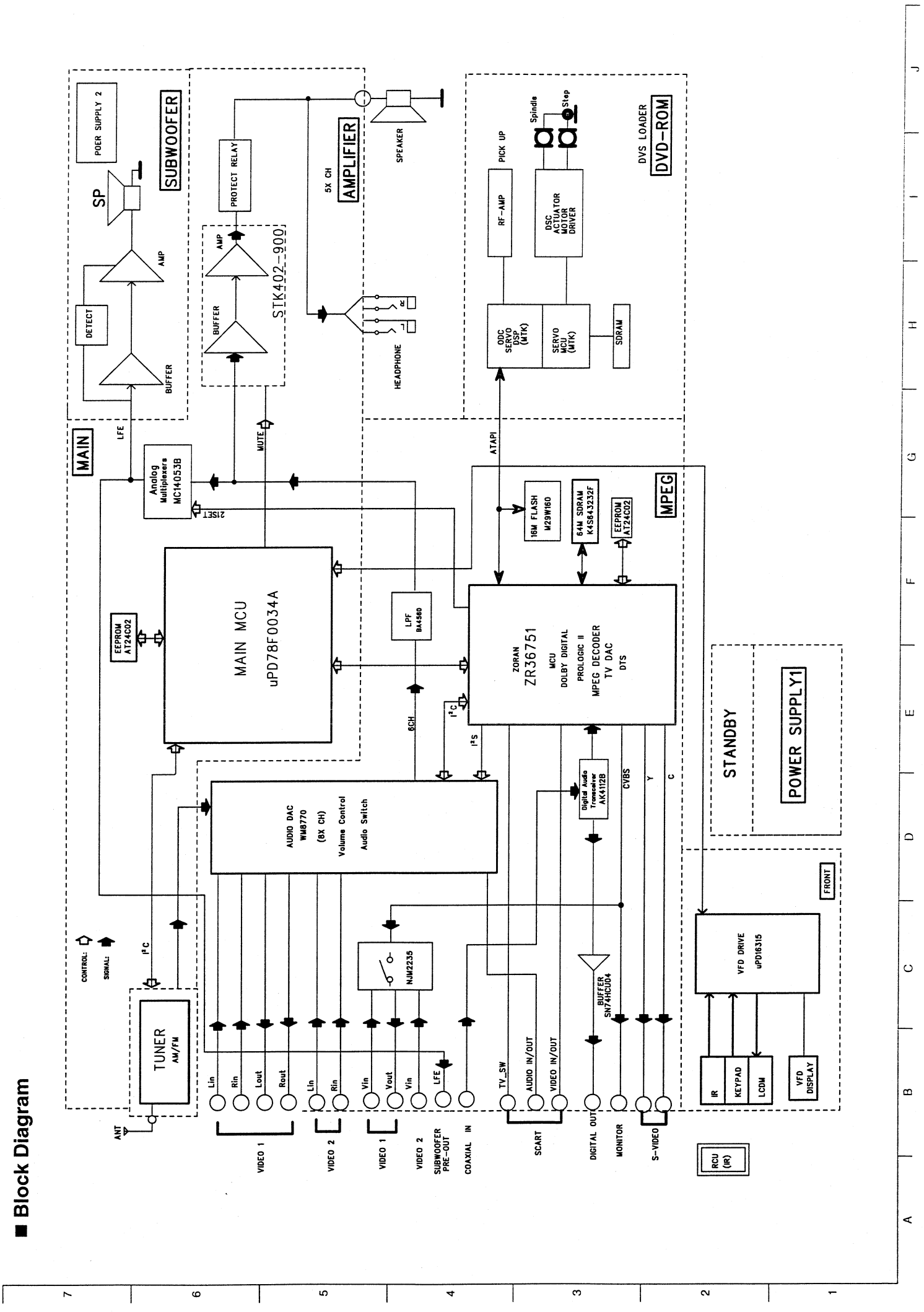


■ MC 14053B (U21): digitally - controlled analog swith

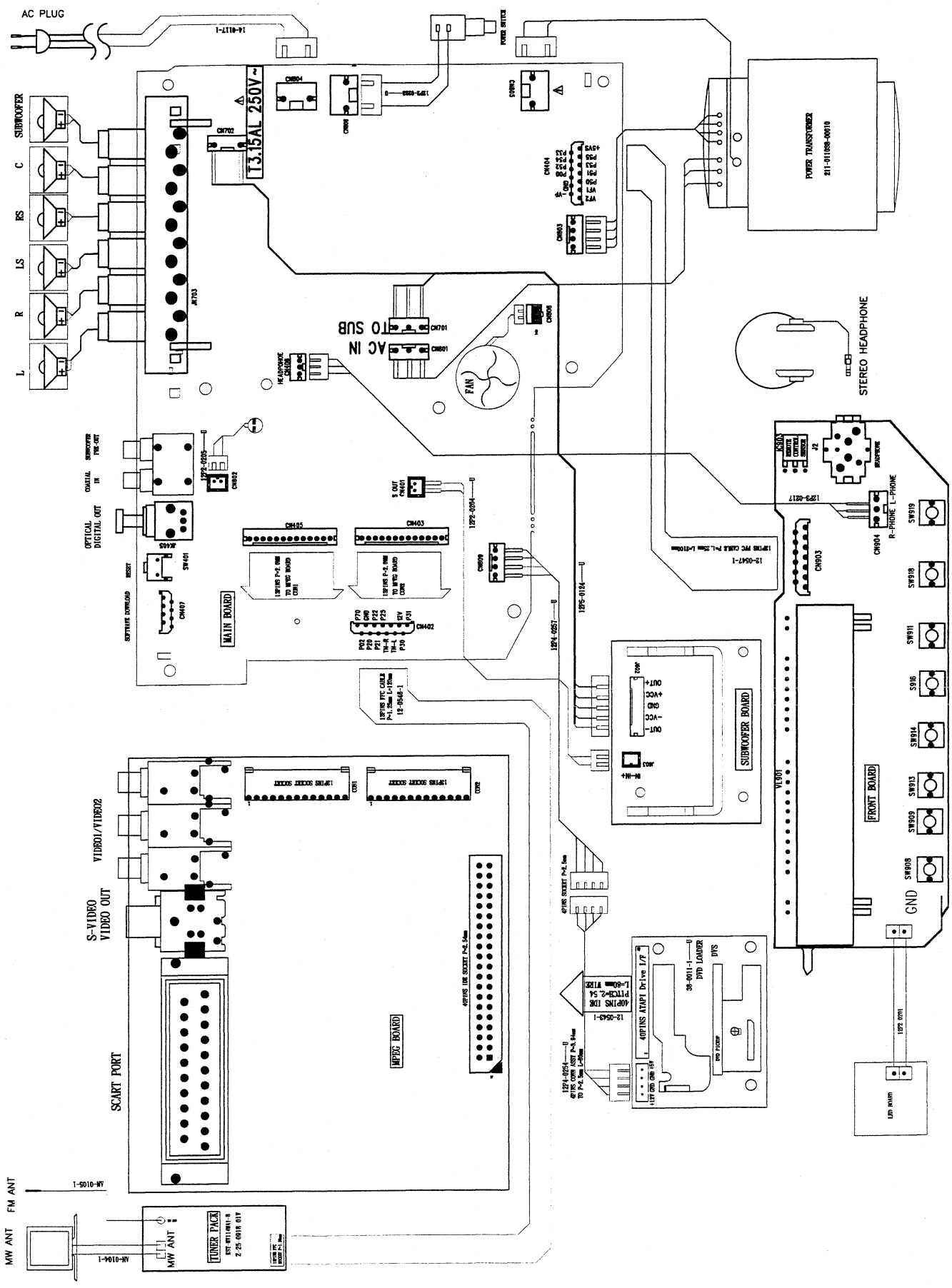
Pin layout



■ Block Diagram



■ Wiring Diagram



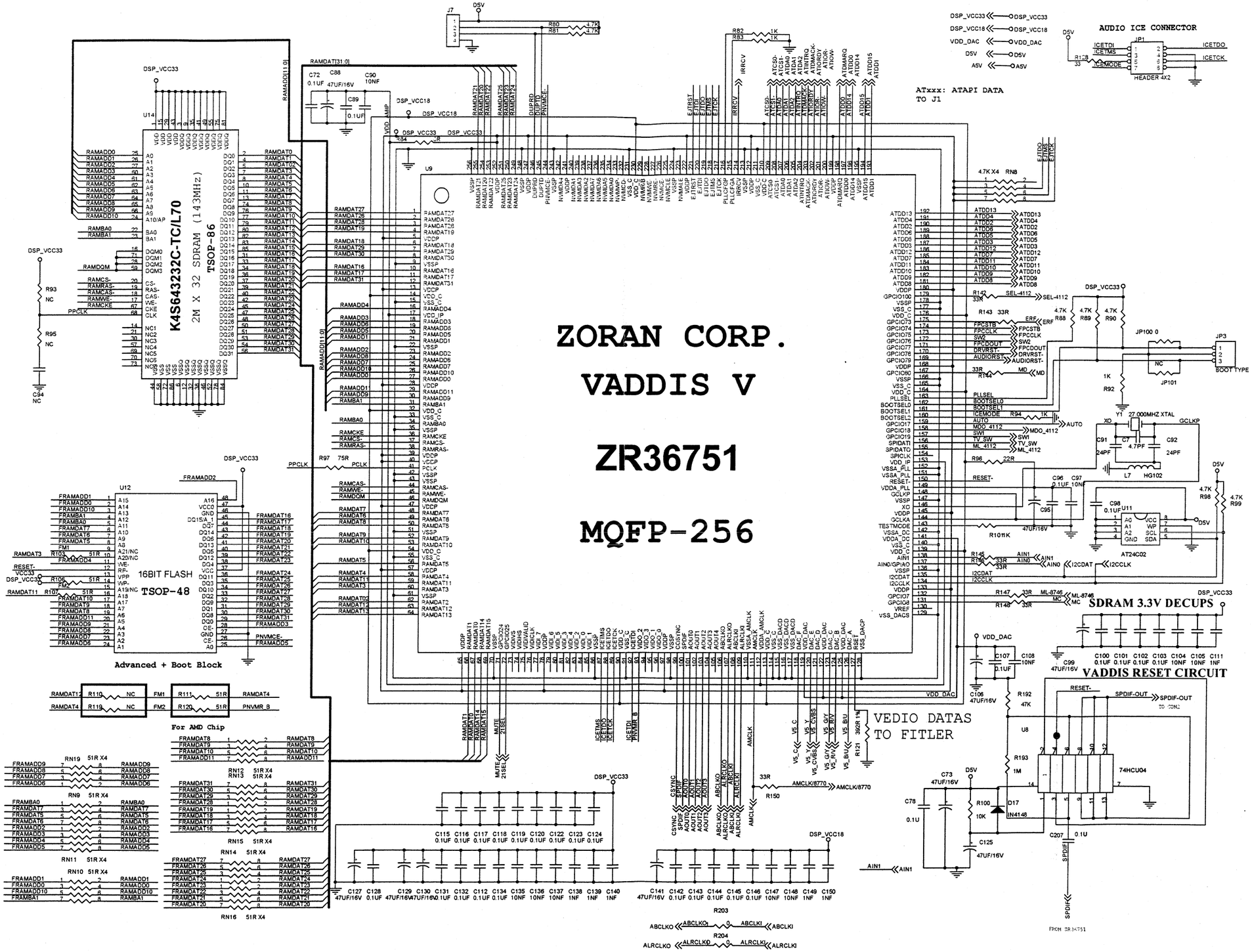
MPEG SECTION
■ Schematic Diagram

ZORAN CORP.

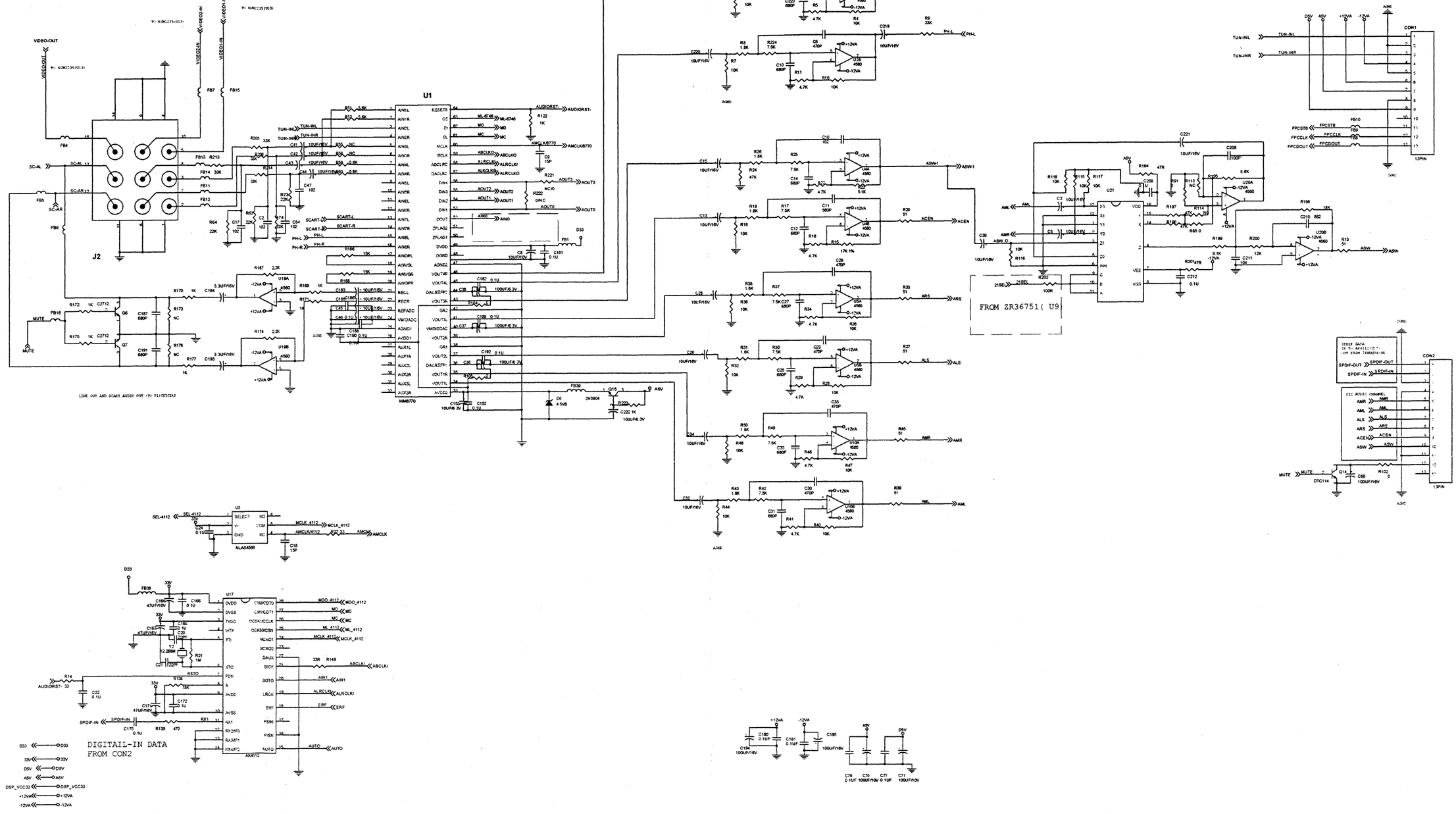
VADDIS V

ZR36751

MQFP-256

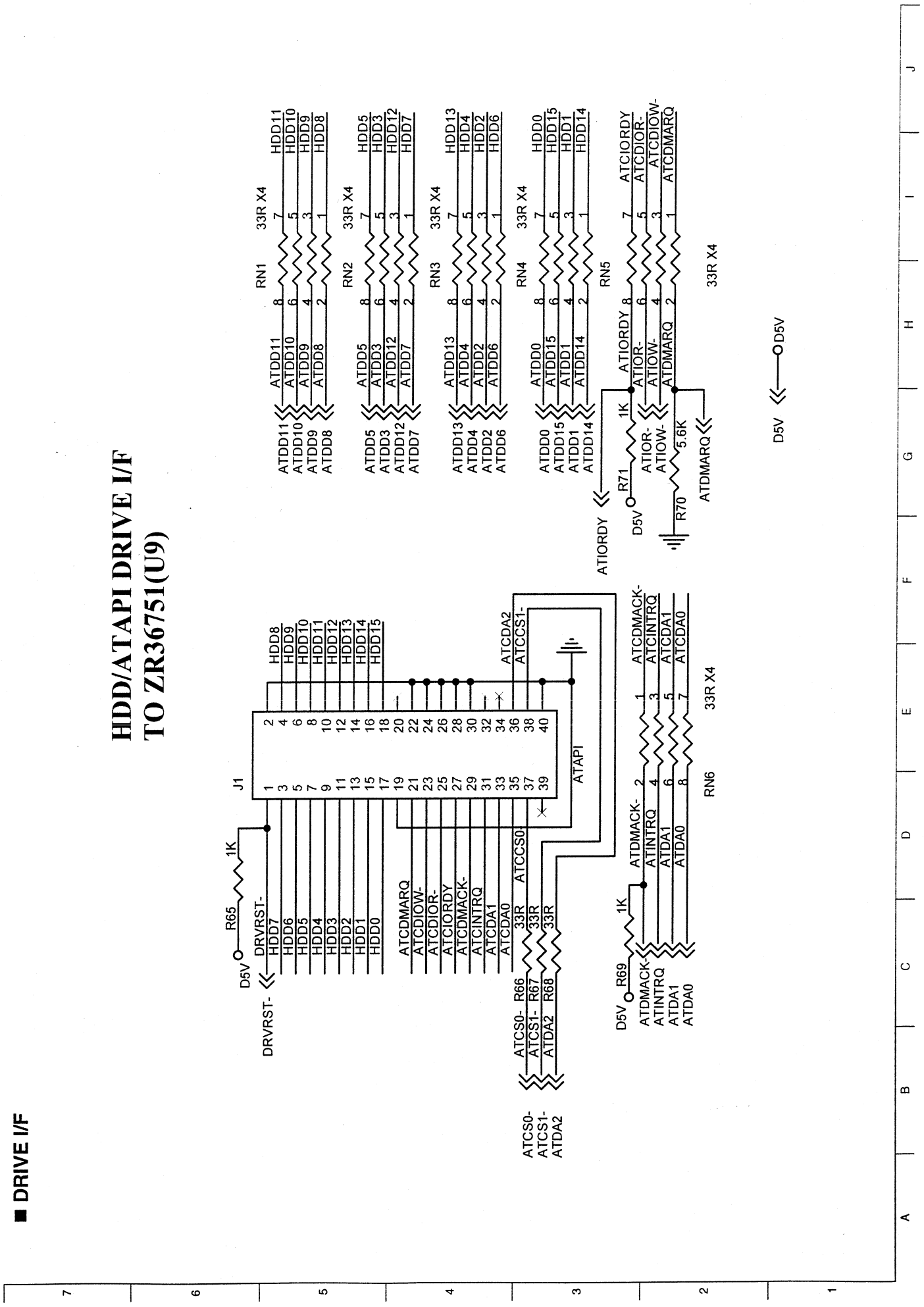


■ AUDIO CODEC & AUDIO/VIDEO POST

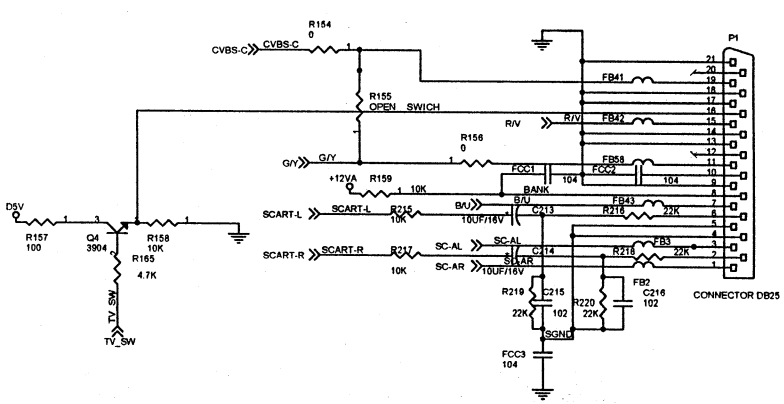


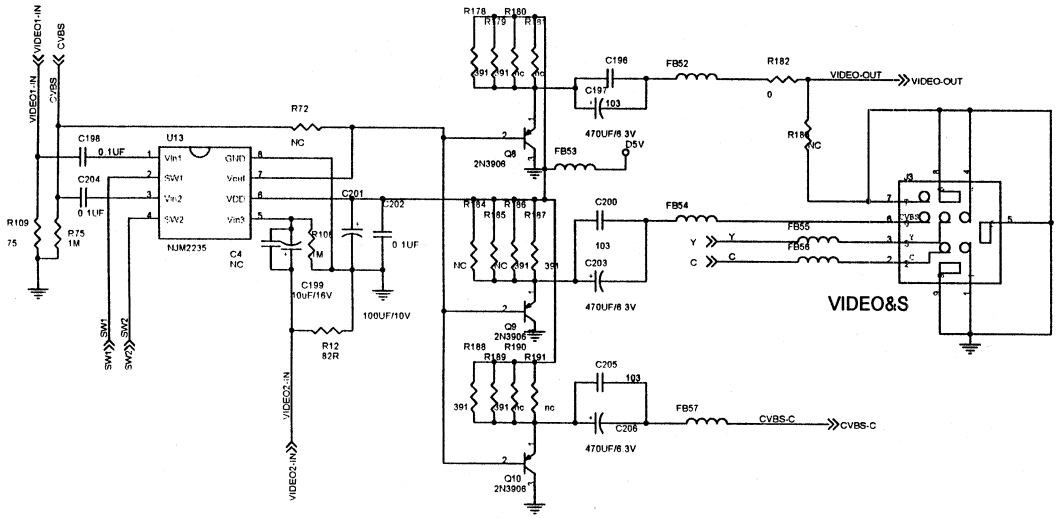
■ DRIVE I/F

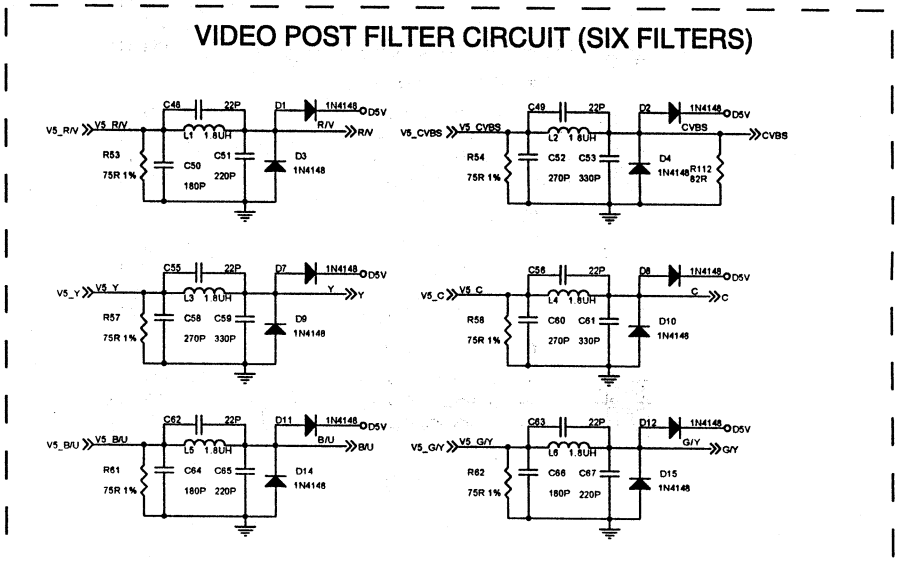
HDD/ATAPI DRIVE I/F
TO ZR36751(U9)

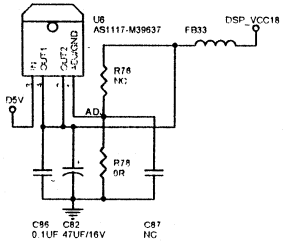


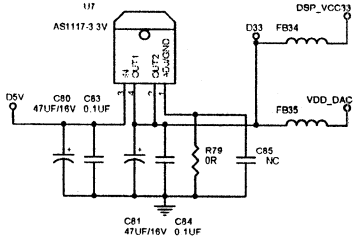
■ VIDEO_OUT & POWER

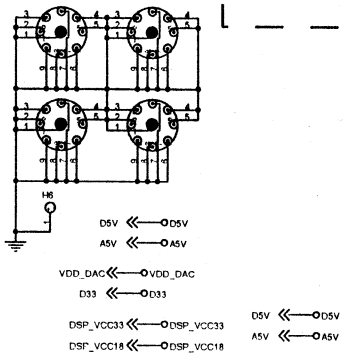




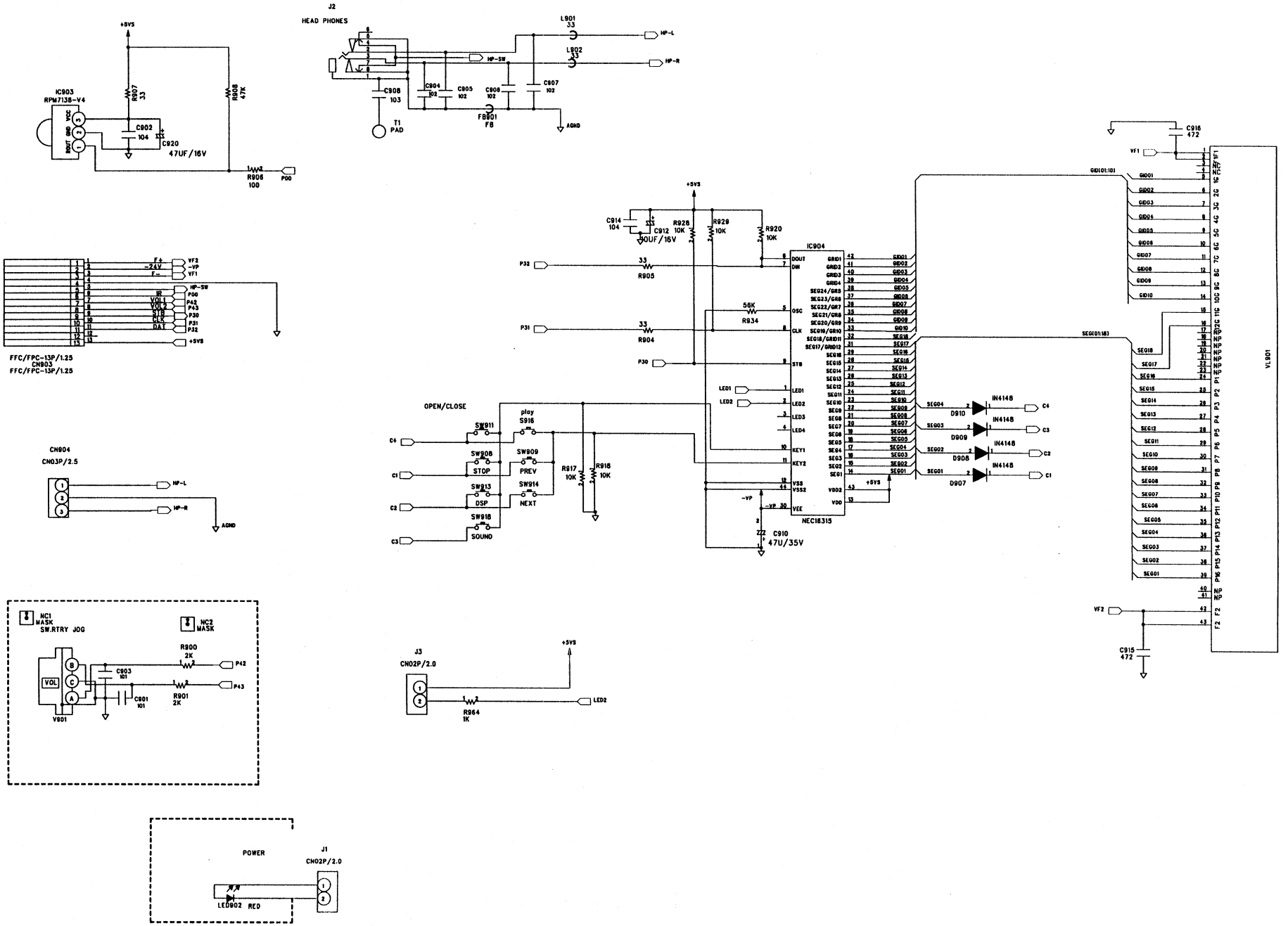




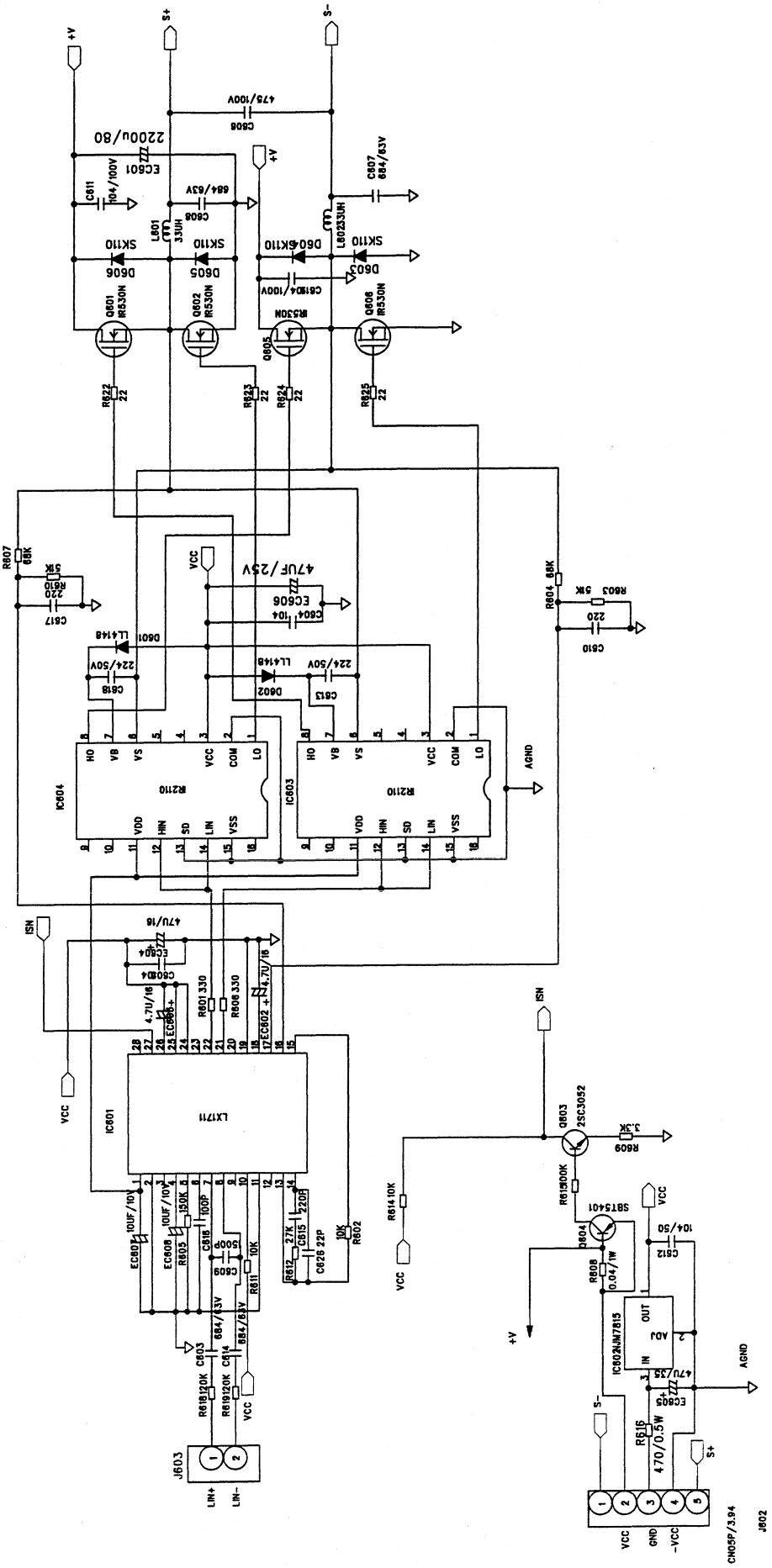




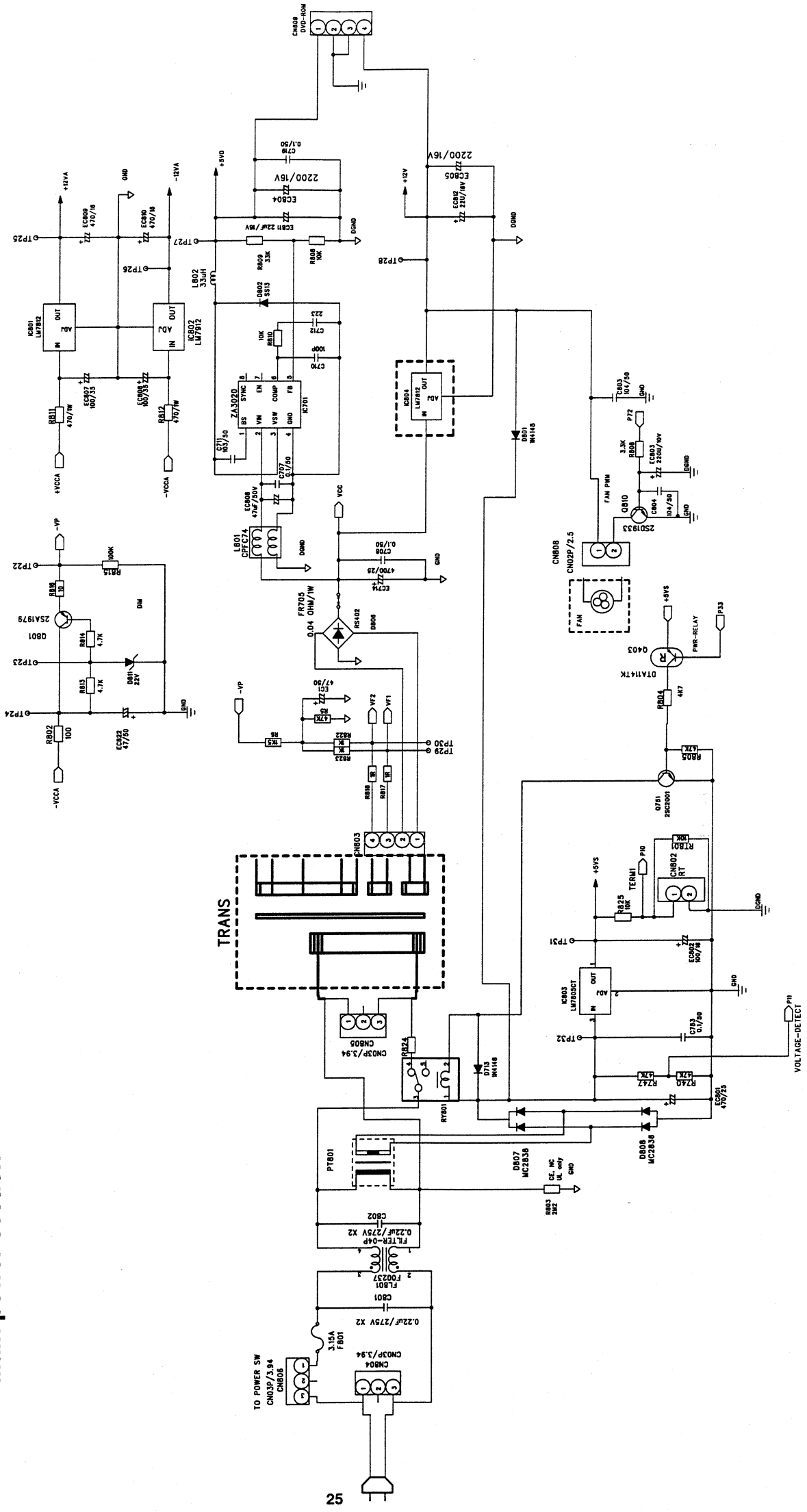
■ FL Display and Control



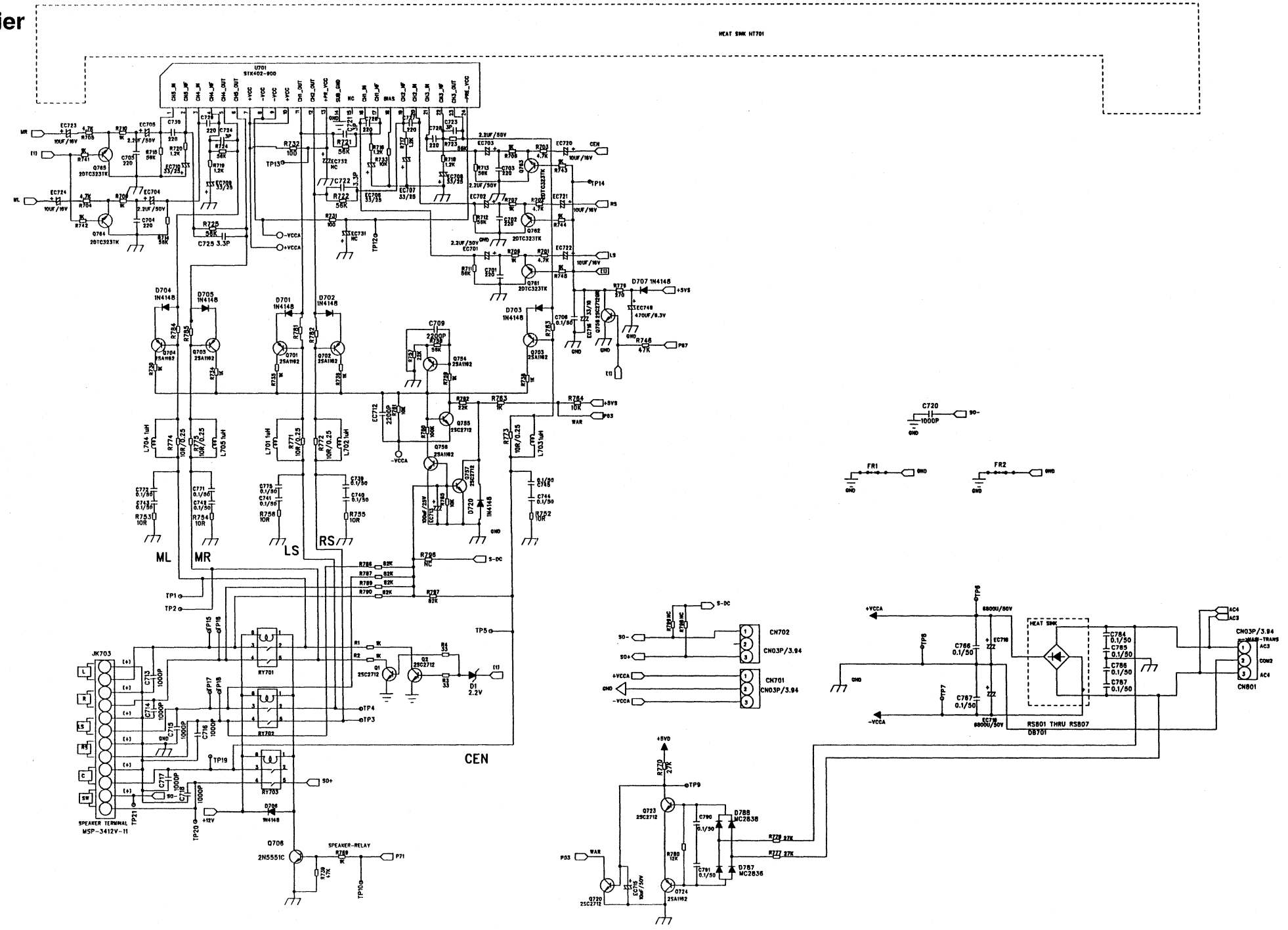
■ Subwoofer section



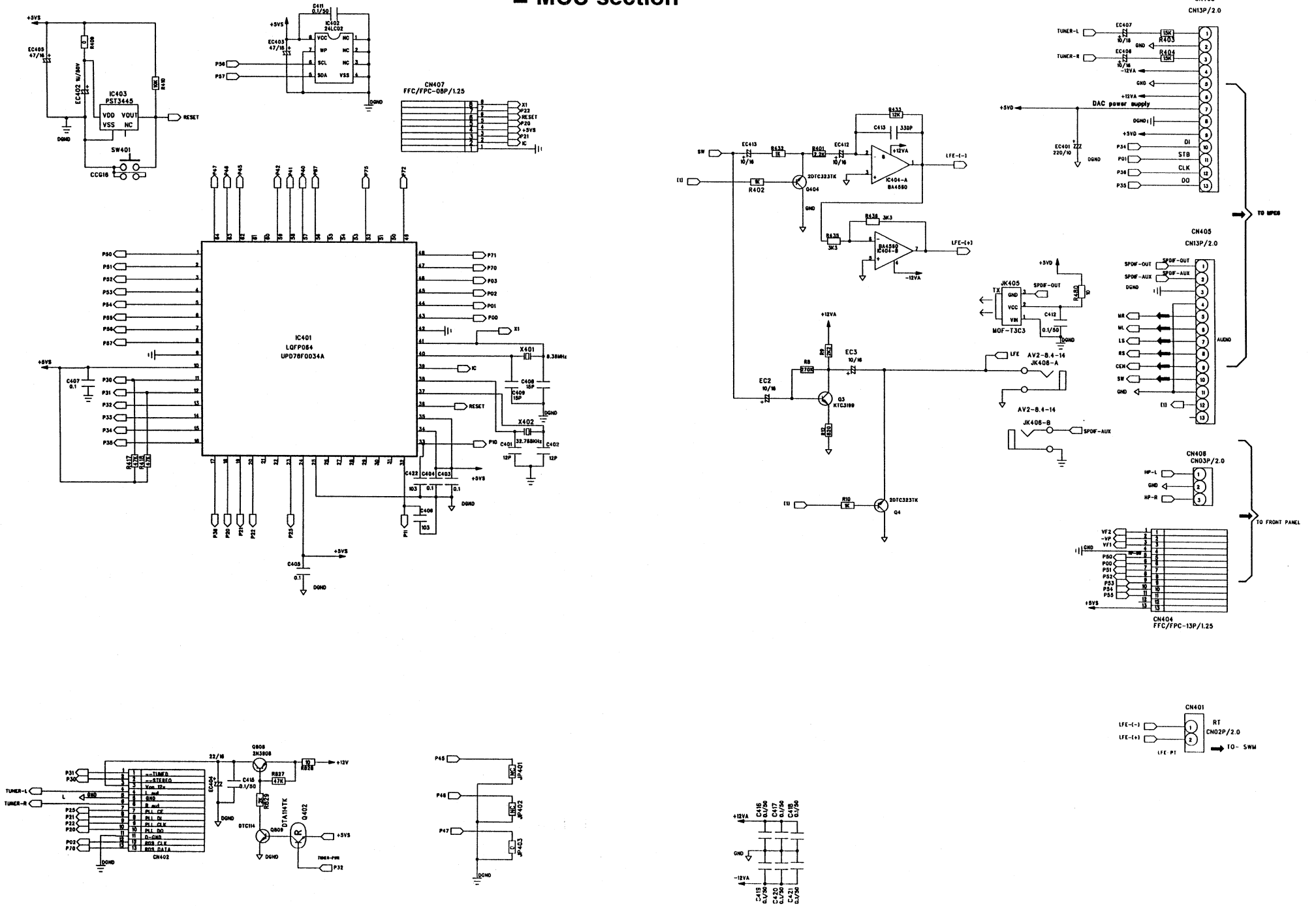
■ Main power section



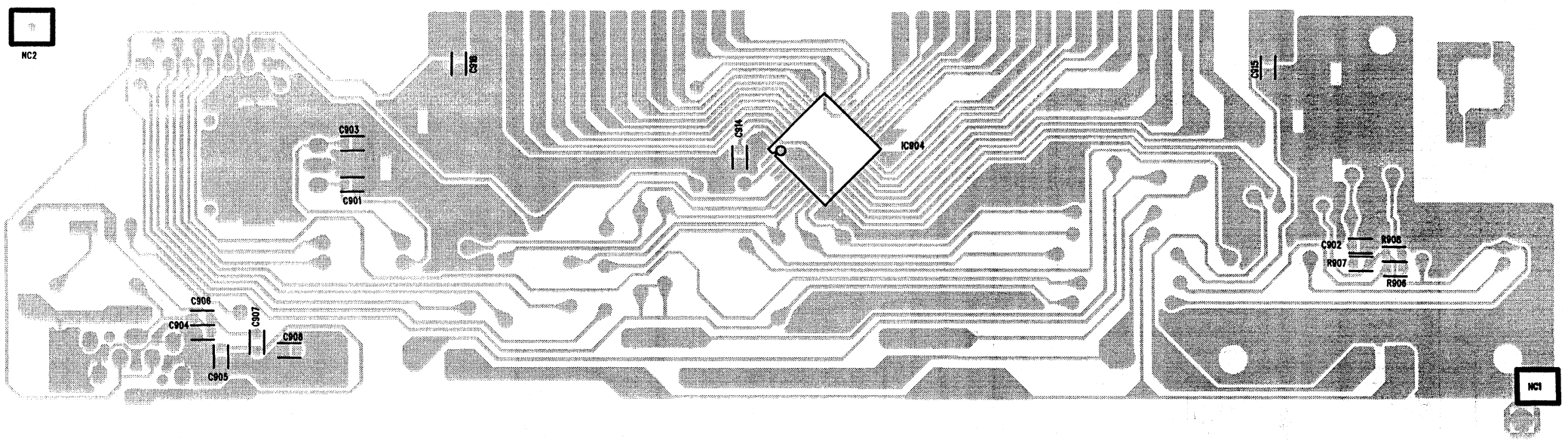
■ Amplifier


HEAT SINK HT701
U701
STK402-900
ML
MR
LS
RS
CEN
JK703
SPEAKER TERMINAL
MSP-3412V-11
SPEAKER-RELAY
Q706
2N5551C
CN702
CN03P/3.94
CN701
CN03P/3.94
CN801
RS801 THRU RS807
DB701
HEAT SINK
+VCCA
-VCCA
+5VD
+12V
S-DC
S0-
S0+
WAR
FR1
FR2

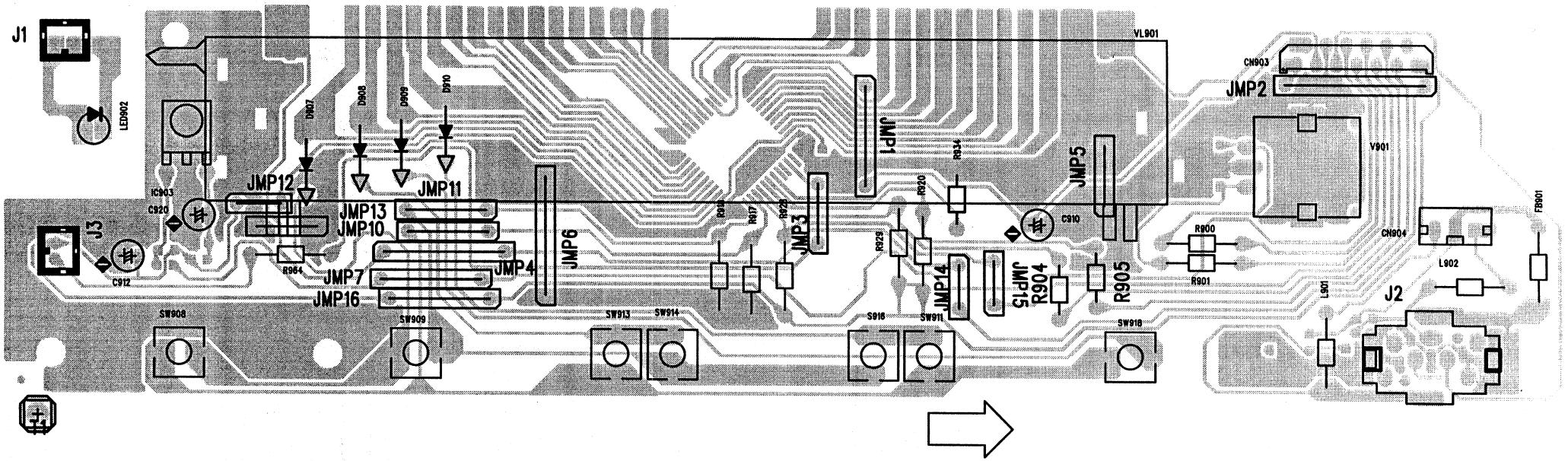
■ MCU section


IC401
LQFP064
UPD78F0034A
IC403
PST3445
SW401
CN407
FFC/FPC-08P/1.25
IC402
24LC02
CN403
CN13P/2.0
CN405
CN13P/2.0
CN408
CN03P/2.0
CN404
FFC/FPC-13P/1.25
CN401
RT
CN02P/2.0
CN402
DAC power supply
TO MPEG
TO FRONT PANEL
AUDIO
MOF-T3C3
JK405
JK406-A
JK406-B
AV2-8.4-14
X401
8.38MHz
X402
32.768KHz

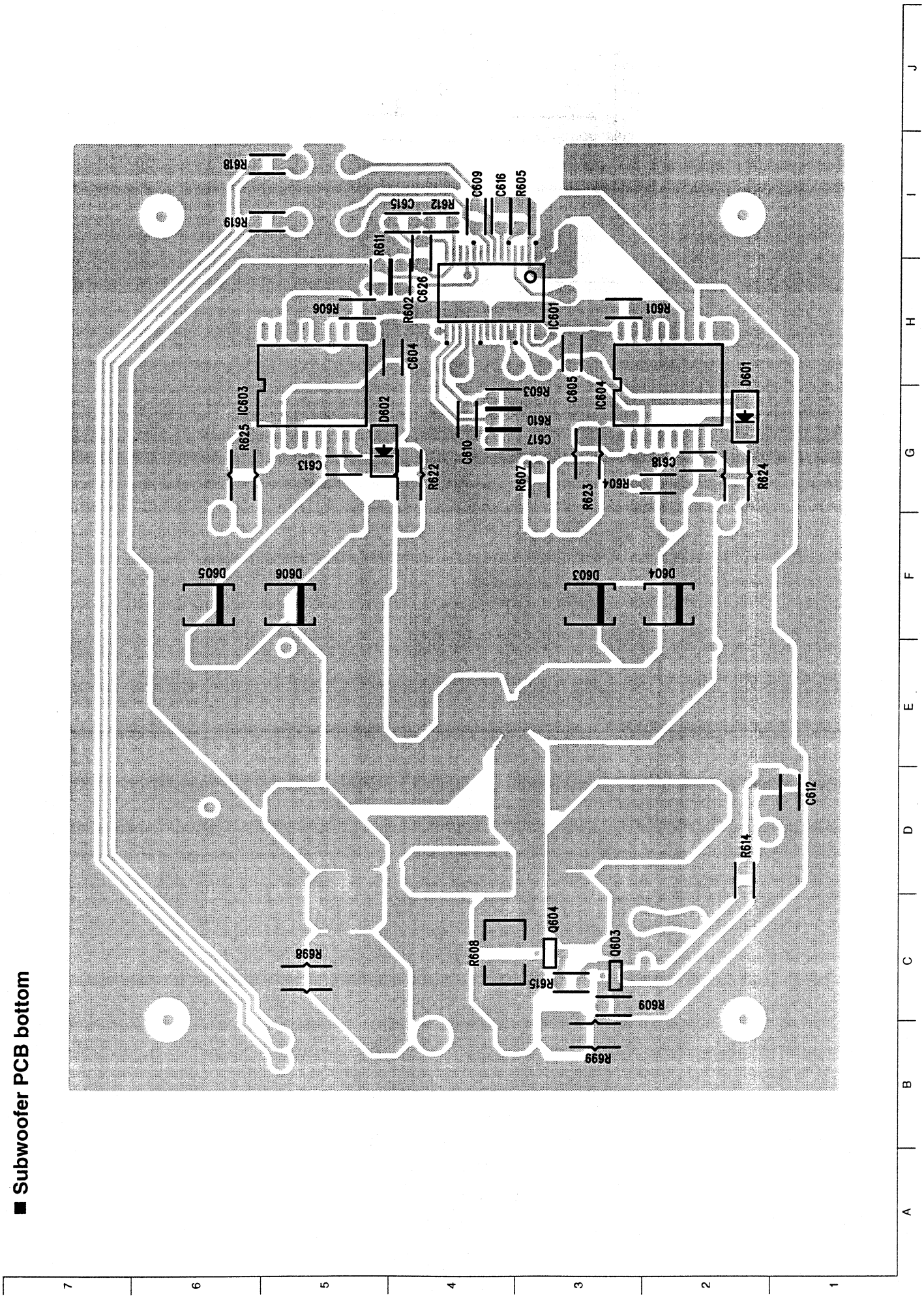
■ Front PCB bottom



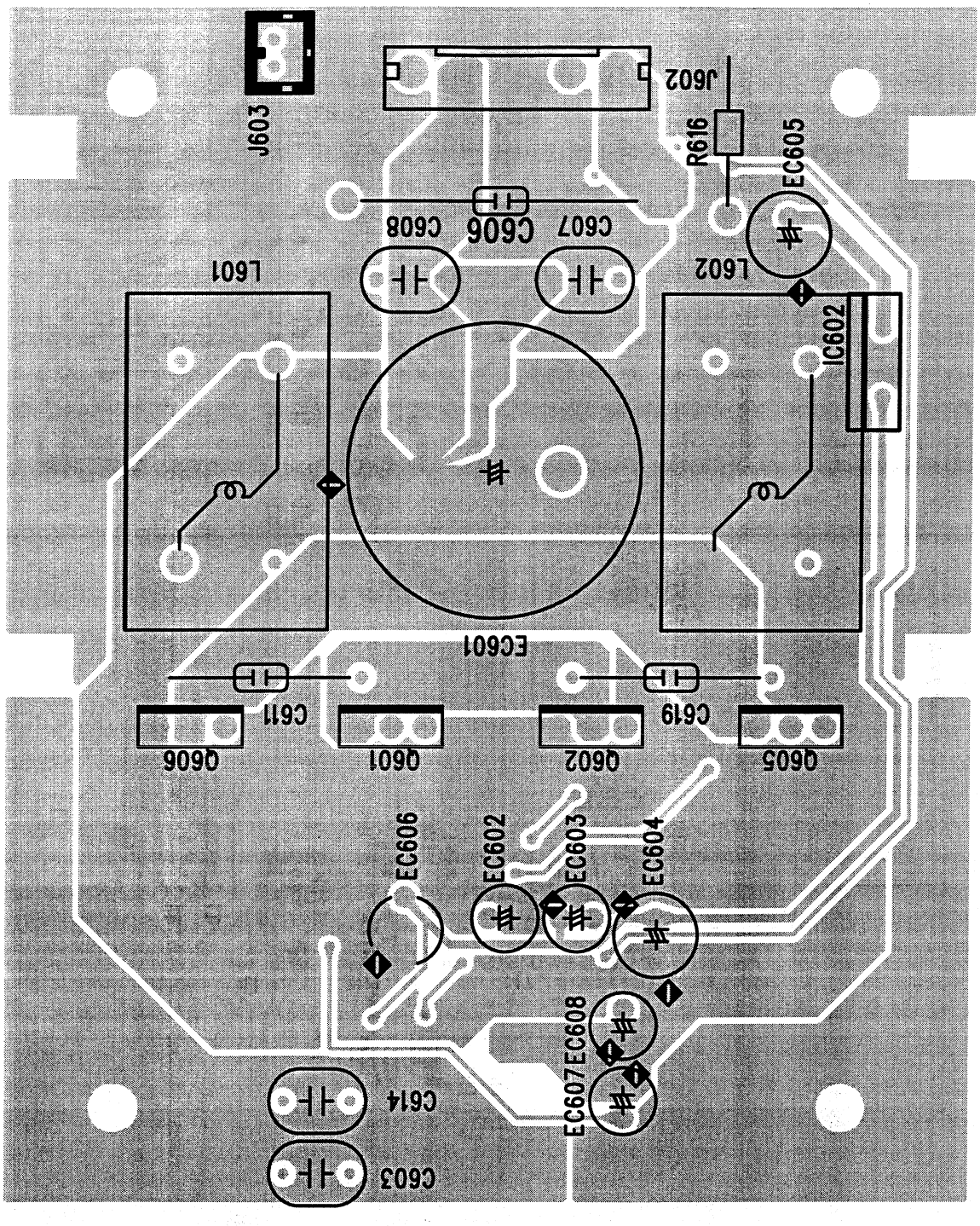
■ Front PCB bottom



■ Subwoofer PCB bottom

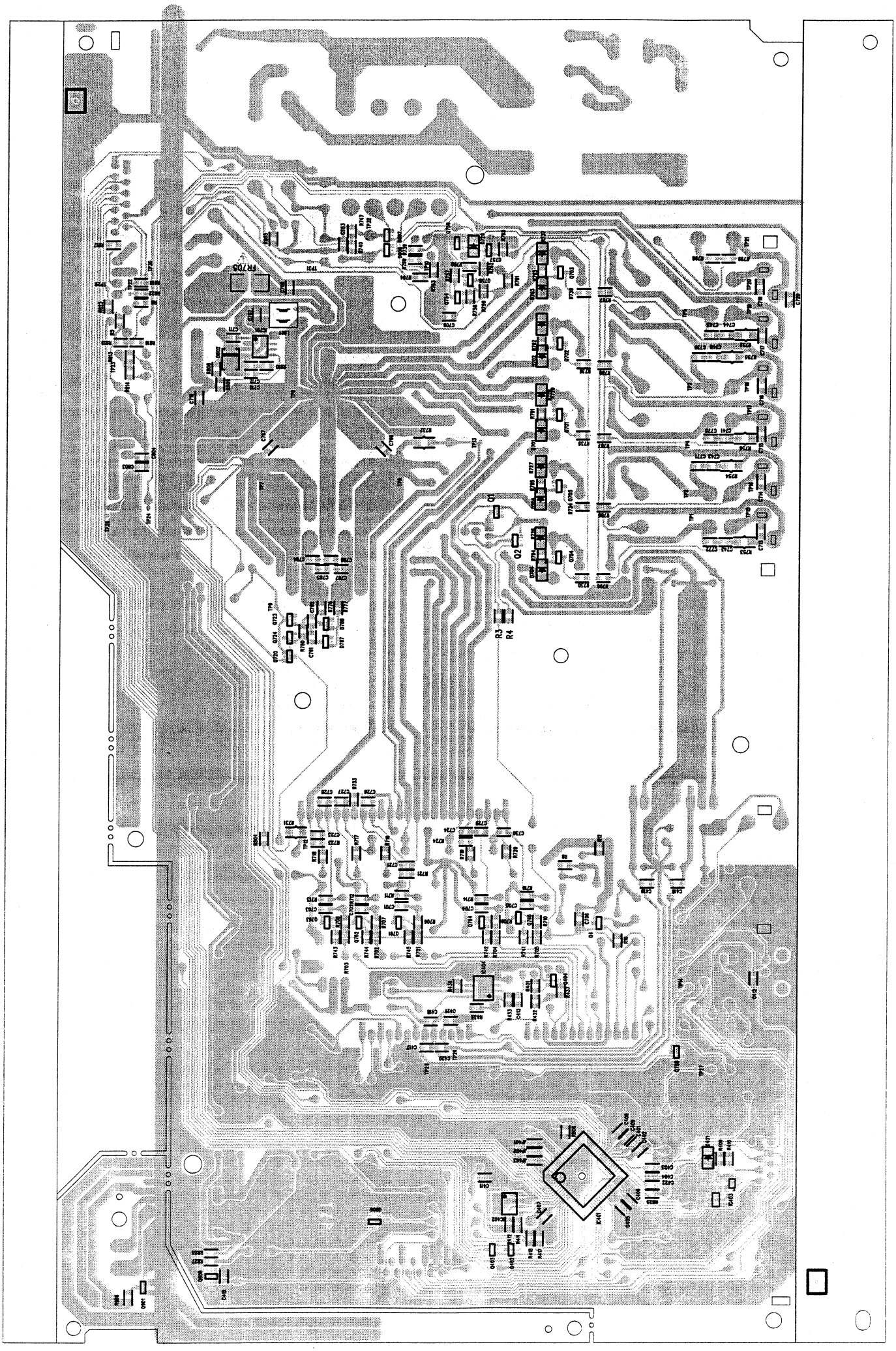


■ Subwoofer PCB top

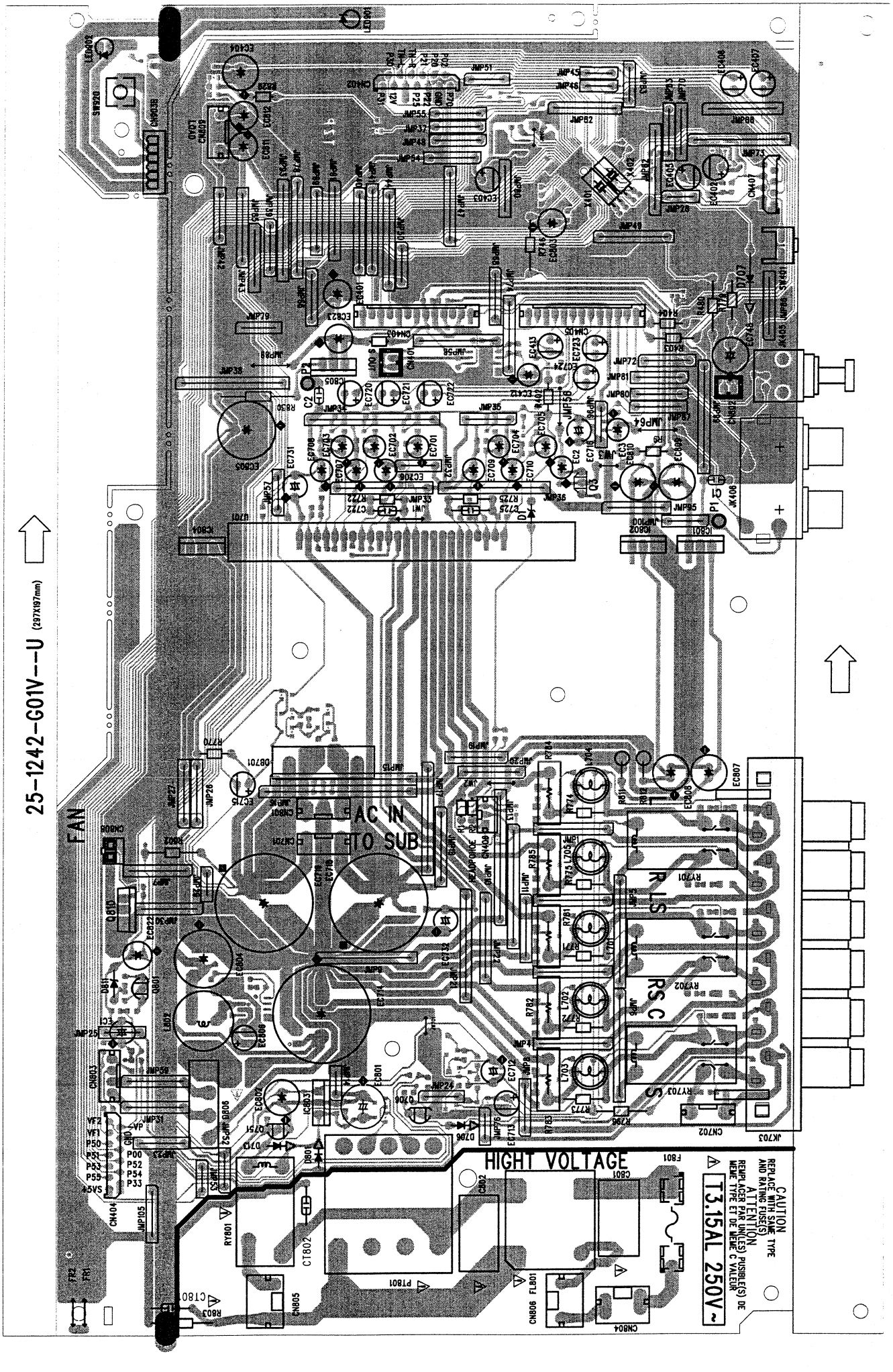


25-1209-B02V--U

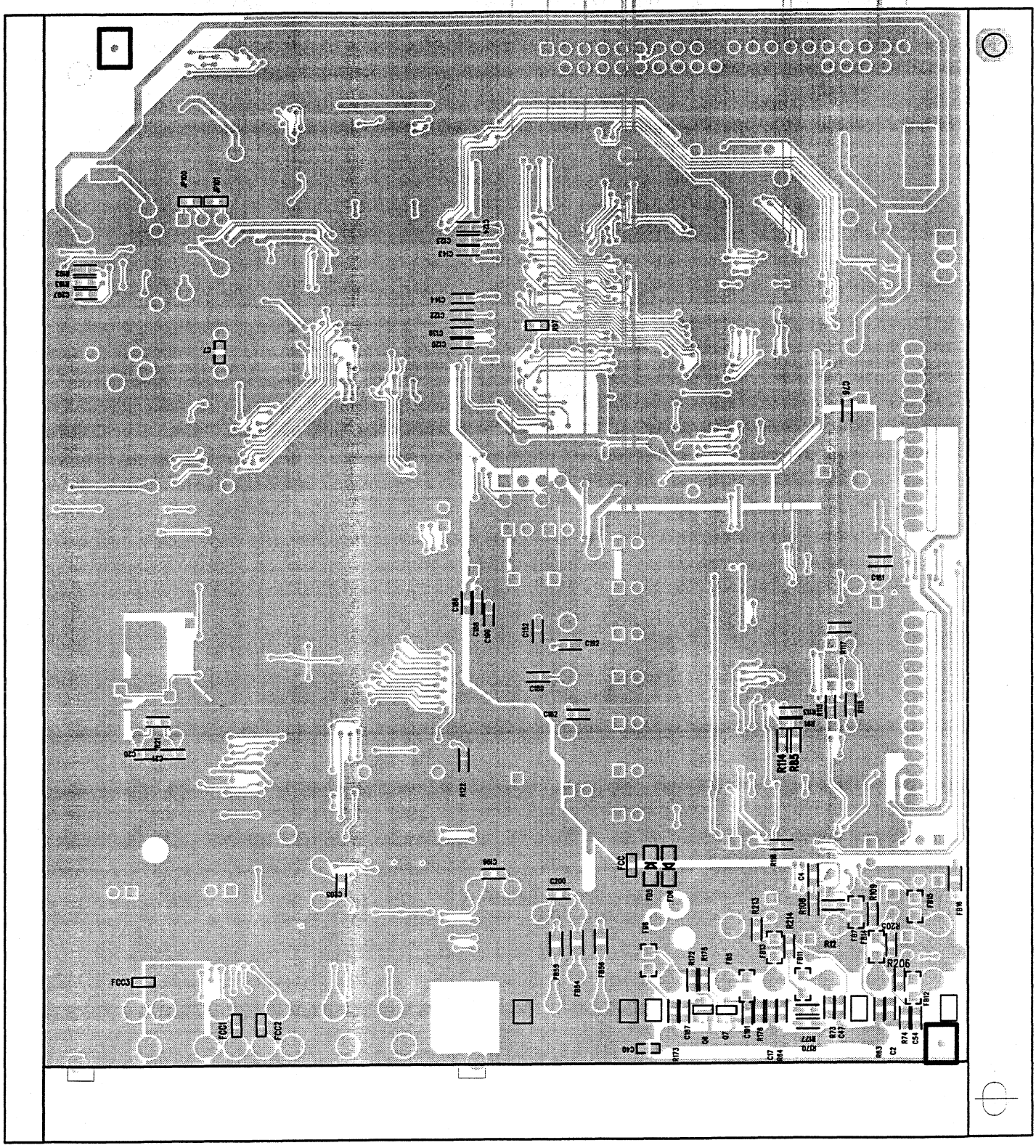
■ Main PCB bottom



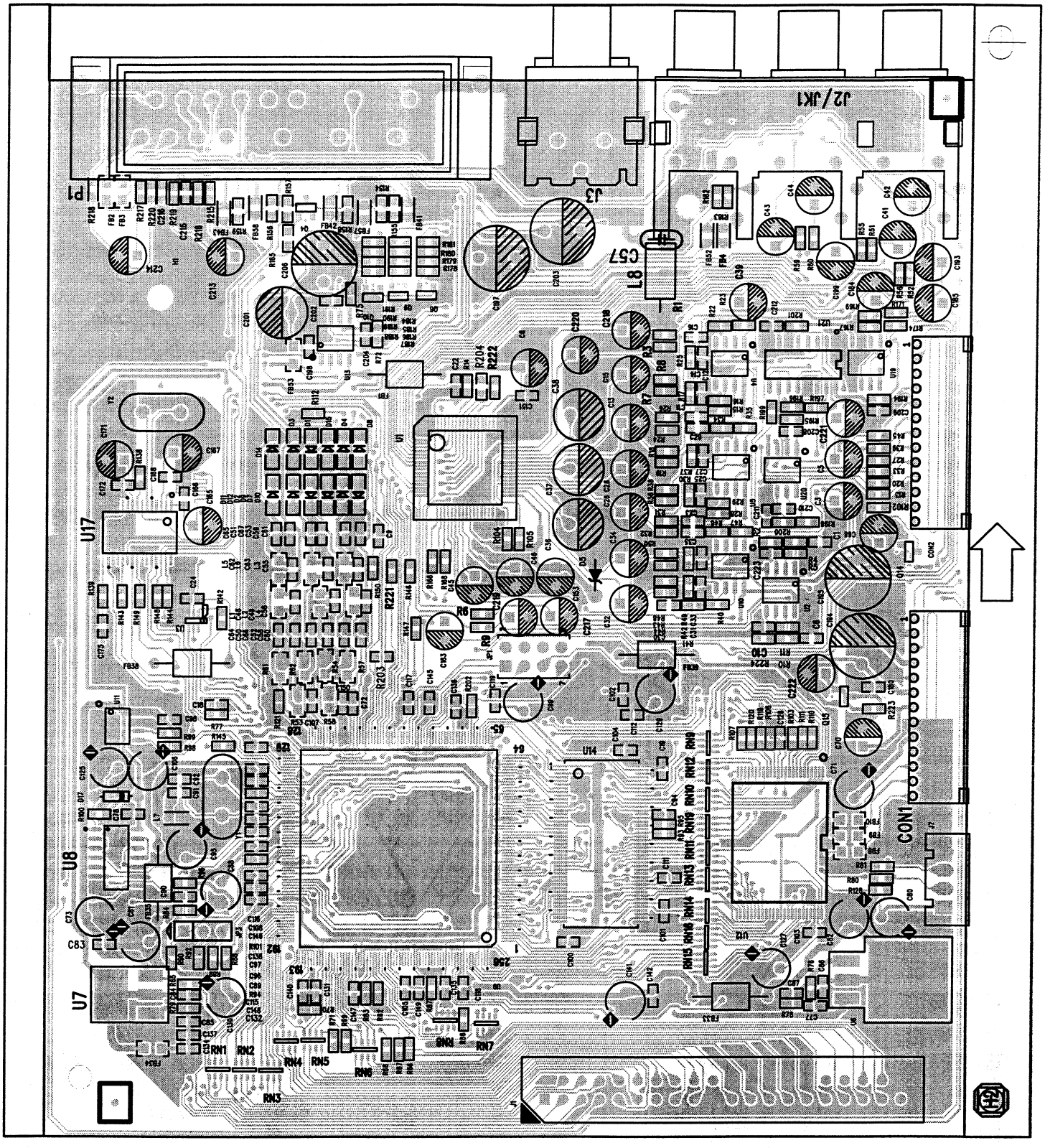
■ Main PCB top


25-1242-G01V--U (297X197mm)
FAN
AC IN
TO SUB
HIGHT VOLTAGE
CAUTION
REPLACE WITH SAME TYPE
AND RATING FUSE(S)
ATTENTION
REMPLACER PAR UN(LES) FUSIBLE(S) DE
MEME TYPE ET DE MEME C VALEUR
T3.15AL 250V~

■ Mpeg PCB bottom



■ Mpeg PCB top


J2/JK1
J3
P1
U17
U8
U7
U1
U14
CON1
C57
L8
RN1
RN2
RN3
RN4
RN5
RN6
RN7

Exploded view of general assembly and parts list